

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2022

TUESDAY, JUNE 22, 2021

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room 192, Dirksen Senate Office Building, Hon. Jon Tester (chairman) presiding.

Present: Senators Tester, Leahy, Baldwin, Shaheen, Shelby, Murkowski, Blunt, Moran, Hoeven, and Boozman.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

OFFICE OF THE SECRETARY

STATEMENT OF HON. CHRISTINE E. WORMUTH, SECRETARY

OPENING STATEMENT OF SENATOR JON TESTER

Senator TESTER. Good morning. Let me begin by welcoming our witnesses. Christine Wormuth was recently confirmed as the 25th Secretary of the Army. She is no stranger to breaking barriers, and I look forward to working with her to tackle the tough issues in store over the coming years. General James McConville is the 40th Chief of Staff of the Army. He is a war fighter first, having received too many awards and decorations to list in this short opening statement. His expertise as a distinguished helicopter pilot makes him uniquely qualified to help oversee the Army's current aviation modernization efforts. General, I want to thank you for your service, and we look forward to your testimony.

As we continue our efforts to confront growing threats from abroad, the Army has recognized the need to become a more distributed and agile force. In plain English, this means being able to fight on the move, across the ground, air, sea, space, and cyber domains. There is always more room to collaborate with other services working in these domains, and I commend the Army for embarking on a historic change in how it will fight the wars of the future. To do this, the Army is on an aggressive pursuit of modernization, including ground combat vehicles, soldier lethality, aviation, and long range attack capabilities. The Army has tried this before, the last two decades, tens of billions spent on R&D programs, but we have little to show for it.

Today, we are beginning to see these modernization programs not only in advanced development stages, but also initial produc-

tion. Secretary Wormuth and General McConville, this is promising news. And I ask you to keep the Army on this good track. The Army's budget took an overall top line reduction, but still increased investment in its top priorities. As a subcommittee, we need to know whether the dollars in this budget are enough to continue development and increase production on all of these new capabilities without jeopardizing today's readiness.

We must also look down the road a few years and ask if the Army is prepared to afford all these new systems that they are getting ready to procure. High tech weapons are expensive, and we must be able to buy them fast enough if budgets remain stable. Once again, I want to thank Secretary Wormuth and General McConville for appearing here today. I look forward to your testimony and perspective on the fiscal year 2022 budget. Senator Shelby.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. Secretary, warmest welcome to your first hearing before our subcommittee in your new role. Congratulations. General McConville, thank you also for being here. You are no stranger to this place. I look forward to hearing about the Army's budget proposal for 2022. This discussion is particularly important, I believe, because the Army's budget proposal reflects a 2 percent reduction from fiscal year 2021.

The reduction is proposed despite the need to maintain readiness and make progress on key modernization priorities like the long range hypersonic missile and improve lethality capabilities. You are both well aware that our adversaries, including China and Russia, pose new and increasing threats that erode our traditional technological and battlefield advantages. They are making unprecedented investments in their capability and capacity. And China specifically has stated—has a stated object of surpassing us by the middle of the century. They made a lot of progress.

We can't let them do that though. Given that the overall funding request for the Department of Defense does not keep pace with inflation, and the Army budget proposal reflects a decrease from last year, I am concerned that we are sending the wrong message to both our allies and our adversaries. I look forward to hearing today regarding the 2022 budget request and I look forward to question and answer time. Thank you.

Senator TESTER. Thank you, Senator Shelby. We will start out with your testimony, Secretary Wormuth.

SUMMARY STATEMENT OF HON. CHRISTINE E. WORMUTH

Secretary WORMUTH. Chairman Tester, Vice Chairman Shelby, distinguished members of the committee, thank you so much for your continued support for our Army and our people, and thank you for the warm welcome today. I am very glad to be here. It is a real privilege to be with you today, and I would like to very honestly and earnestly take a moment to thank General McConville for his lifetime of service to our Army and to our Nation. In my about month of time in the job, he has been a great partner and we are off to a running start.

I am honored to be serving as the Secretary of the Army and to be working with Secretary Austin and Deputy Secretary Hicks once again. I thank them for their continued leadership. As I have stepped into the role, I am surprised—I am impressed but not surprised to see the State of our Army and its professionalism, the hard work of our soldiers and families, and the continued sacrifice that our soldiers and leaders make every day as part of our—the world’s greatest land fighting force. I would like to highlight a few key observations on the state of our Army as I see them today.

First, the Army must continue to heavily invest in the development of its people. People are the strength of our Army. We are steadily working to enhance our force structure, build inclusive leadership, and invest in quality of life initiatives. Like my predecessors, I can assure you that the character, culture, and climate within our formations at every installation will reflect a continued focus on placing people first.

The harmful behaviors of sexual assault and harassment, racism, and extremism cannot and will not be tolerated. We will purposefully work to stem the tide of suicides that we have experienced in our Army in the last few years. Our responsibility is to ensure every soldier and civilian has the right leadership, policies, and resources to be safe and successful among their teams so that they can continue to be successful in our Nation’s defense. Second, the Army is now a leader in new technology. From Army future’s command to cross-functional teams to the Rapid Capabilities and Critical Technologies Office, to fielding next generation soldier equipment for individual unit members, the Army is prototyping and experimenting with new capabilities and concepts.

The Army is at the forefront of developing and fielding new technology in counter UAS (Unmanned Aircraft Systems) directed energy, hypersonic weapons, next generation assured positioning navigation and timing devices, pushing software coding to the edge, and many other areas. Third, the Army is opening doors in the Indo-Pacific, Europe and beyond. The Army can be relied upon to engage with our allies, foster partnerships, maintain deterrence, and set conditions for success prior to or while engaging in conflict.

Deterrence requires boots on the ground, and our Department of Defense must be present to succeed in crisis. The Army is recognized as an enduring, reliable partner that can directly contribute by bringing resources, training, and expertise to countries in regions around the world. Our partnership can lay the groundwork for access and cooperation and contingencies in crisis. Fourth, the next fight will be in all domain conflict. Future conflict will be in across all domains with ground forces to secure terrain, penetrate defenses, and achieve objectives. The Army’s transformation is directly aimed at supporting joint war fighting that will depend on joint all domain command and control, expeditionary joint logistics, and joint maneuver across domains.

As the Army continues to modernize, we will maintain our overmatch against near peer adversaries, helping make future conflict less likely by ensuring that the cost to our adversaries outweigh any benefit. And finally, the Army’s readiness, gains, and modernization procurement requirements must be prioritized to continue. The Army recognizes the need to modernize concepts and ca-

pabilities to sharpen our global competitive edge. Working in close coordination with you all in Congress, we established a deliberate, achievable path to deliver a ready, modernized Army.

Significant progress has been made, but success can only be assured through continued transformation. The Army has already made and will continue to make tough decisions to ensure the best use of resources to adapt to and stay ahead of the capabilities of our adversaries, whether they are near peer nations or newly emerging threats. The Army will also compete successfully below the threshold of conflict. The President's budget will help us to care for our people, maintain and enhance our readiness, and innovate and modernize. With your continued support, we will pivot to next generation capabilities to ensure we can win now and in the future.

Our Army is in great shape, but we have important work ahead. I want to use this window of opportunity in the next few years to make certain that the Army will continue to provide modernized and ready forces capable of responding globally.

I join General McConville in striving to ensure we provide the Army with the resources it needs to succeed. I know the Chief is eager to share his thoughts as well, and I look forward to your questions. Thank you.

Senator TESTER. Thank you, Secretary Wormuth. General McConville.

STATEMENT OF GENERAL JAMES C. McCONVILLE, ARMY CHIEF OF STAFF

General McCONVILLE. Well, thank you. And I would like to thank the Secretary for her leadership during this critical time in the Army. Chairman Tester, Vice Chair Shelby, distinguished members of the committee, thank you for the opportunity to be here today and your continued support for our Army and our people, our soldiers, our families, our civilians, and our soldiers for life, our retirees and veterans.

The Army currently has 485,000 active duty soldiers in a little more than 1 million in the total force. That is roughly the same size Army that we had on 9/11. Army soldiers are presently supporting combatant commanders around the world and in more than 140 countries. They form the most lethal and decisive land force in the world, and they stand ready to fight and win the Nation's wars as part of the joint force. I could not be more proud of each and every one of them.

Since last October, the Army's priorities have been people, readiness, and modernization, making us well aligned with emerging national security guidance. Putting people first means recruiting and retaining the best talent our Nation has to offer, maximizing their potential, and taking care of them. We are building a culture of cohesive teams that are highly trained, disciplined, and fit where everyone is treated with dignity and respect. And that is how we prevent the harmful behaviors that hurt our soldiers and break trust with the American people. These being sexual assault and harassment, acts of racism, extremism, and death by suicide.

All three of my children, two sons and a daughter, plus my son in law, are currently serving in the Army. Providing a safe and secure environment for our soldiers is not only my responsibility as

chief of staff the Army, it is also a deeply held personal commitment. We win through our people. The best fighting forces in the world ensured their soldiers and units are masters of their craft. That is why we are shifting to a foundational readiness model that prioritizes training at the company level and below first.

The Army has rebuilt a high level of readiness with the support of Congress, but that readiness level is fragile. We must sustain that high level of readiness while continuing our most comprehensive transformation and modernization efforts in over 40 years. That is the only way we will maintain our overmatch against our near peer competitors and would be adversaries. This year, we are turning our multi domain operations concepts into real doctrine. We are not only developing but delivering on our six modernization priorities, including our 31 plus 4 signature systems.

With new doctrine, organizations, and equipment, the Army is offering multiple options to combatant commanders and multiple dilemmas to competitors and adversaries. And we are doing so alongside our sister services and alongside our allies and partners. The U.S. Army never fights alone. We are the strongest land force in the world and a great source of that strength comes from our allies and partners. As a people based organization, we are uniquely qualified to foster these relationships.

Thank you for your continued support to America's sons and daughters in uniform. I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF HON. CHRISTINE E. WORMUTH
AND GENERAL JAMES P. MCCONVILLE

EVOLVED PRIORITIES

America's Army remains prepared to compete globally and fight and win the Nation's wars as a member of the Joint Force. As demonstrated repeatedly over the past year, we also remain the Nation's principal response force to protect our country and communities in the face of unexpected crises. We thank Congress for the consistent, predictable, and sustained funding you have provided. This funding enabled us to deliver a ready Army that responded promptly and superbly to a dynamic and unpredictable security environment, like the COVID-19 pandemic, Middle East tensions, civil unrest, cyberattacks, and south-west border mission. Our priorities are well aligned with the Interim National Security Strategic Guidance: investing in people, sustaining readiness, divesting of legacy systems to reinvest in cutting edge technologies and capabilities, mitigating the impact of climate change, and strengthening our alliances and partnerships.

Last October, the Army evolved its priorities to people, readiness, and modernization. This evolution reflects the achievements of a multi-year effort to rebuild readiness and accelerate modernization. Six years ago, we recognized that readiness had declined precipitously after years of reduced funding, uncertain budgets, and deferred modernization. We also recognized the need for new concepts, capabilities, and posture to compete aggressively in the Indo-Pacific and Europe. With your support, we rebuilt tactical readiness in our units and built strategic readiness in our power projection infrastructure. We deliberately executed internal reforms over the last four years by realigning over \$35 billion within the Army budget to self-fund modernization priorities in support of joint all-domain operations.

Thanks to your continued support for Army modernization, we are successfully pivoting from the incremental improvements of the past to fulfilling the robust Army Modernization Strategy that Congress prescribed in the 2018 National Defense Authorization Act. Because of this strategy, and new Congressional authorities to streamline the acquisitions process, we are already beginning to field new systems in long-range precision fires, air and missile defense, and soldier lethality, with more on the way in next generation combat vehicles, future vertical lift, and the Army network. With these modernization capabilities, we are able to deliver multi-domain concepts, capabilities, and formations that will give the Joint Force

asymmetric, all-domain advantages against near-peer potential adversaries. Our gains are real, but fragile. With Congressional support, we established a deliberate achievable path to deliver a ready and modernized Army by 2028 and a transformed multi-domain Army by 2035. However, sustaining today's readiness and modernizing for tomorrow's readiness is only possible through your timely, adequate, predictable, and sustained funding.

STRATEGIC ENVIRONMENT

A dynamic global security landscape continues to challenge our nation. These challenges include: (1) borderless threats, like COVID, cyber, violent extremism, and climate change; (2) the global siege on democracy to include an increasingly contested information environment; and (3) the changing distribution of global power that draws new lines and value propositions for many of our allies and partners. These challenges require an agile, ready, modern, and multi-domain Army that works alongside strong allies and partners. Strategic competitors and regional actors are testing American norms, institutions, and alliances. China, our pacing threat, increases its global assertiveness, while Russia increases its disruptive behavior. Threats from Iran, North Korea, and violent extremism and terrorism remain. While America's Army maintains a tenuous overmatch, it is fleeting. Future conflicts will manifest at longer range, across all domains, and at much greater speed, both physically and cognitively.

Climate change is altering the Army's operational environment and adding new mission demands; mitigating these effects has been an ongoing priority for the Army for several years. Climate change impacts Army installations globally and opens the Arctic as a new geographic theater for competition. The Army must consider alternative energy sources, improved energy storage, fuel-efficient design, more robust power distribution, and new technologies, such as weather pattern and terrain stability modeling to better inform operations.

The Army must also contend with threats from within. The harmful behaviors of sexual assault, sexual harassment, racism, and extremism hurt Soldiers and break trust with the American people. The Army is working diligently to solidify a culture of cohesion and intervention to protect our Soldiers, not only from the deliberate fratricide of these behaviors, but from the invisible danger of mental and behavioral health issues, and other stressors that can increase the risk of suicide.

PEOPLE FIRST

Listening to Soldiers led to our very deliberate decision to re-align our priorities. The Army's number one priority is now people. Our people are our Soldiers from the Active, Guard, and Reserve components, Army families, Army civilians, and retiree and veteran Soldiers for Life. At every echelon, the Army must promote and build cohesive teams (1) that are highly trained, disciplined, and fit, (2) that are ready to fight and win, and (3) in which each person is treated with dignity and respect. Cohesive teams are the foundation of all our people initiatives and how the Army can best sustain readiness and transform for the future. Three critical enablers from the 2019 Army People Strategy continue to set conditions for putting people first: Army Culture, Quality of Life initiatives, and a 21st Century Talent Management System.

Army Culture

Last December, the Army stood up the People First Task Force to address and implement the 70 Fort Hood Independent Review Committee recommendations, with the understanding that the issues identified are not unique to a single installation. Army leaders are stewards of a special bond of trust and confidence with the American people. We held accountable those leaders deemed to have broken that trust. We have fundamentally transformed our command selection process in order to improve the way we choose future leaders to assume positions with the most influence over Soldiers. We are piloting independent climate assessment teams of subject matter experts to identify unit climate trends early and respond before systemic problems emerge. We are listening to our people to learn and lead better. We conducted 96 listening sessions across 14 locations in addition to a special "Solarium" conference that asked junior- and mid-career leaders to develop solutions. The Army is now working to change policies and aspects of Army culture that impede prevention and response to harmful behaviors. The first policy change introduced "absent—unknown", an additional duty status code which affords missing Soldiers oversight not present in "Absent Without Leave (AWOL)."

"This is My Squad" is the foundational principle for Army culture. This initiative, led by the Sergeant Major of the Army, promotes cohesion by encouraging Soldiers

to better know those around them, develop greater compassion, and intervene early to protect others. Implementation actions include increased non-commissioned officer professional military education, redistribution of experienced leaders, and better reception processes for integrating new Soldiers at each installation and unit.

Project Inclusion is a holistic effort to improve diversity, equity, and inclusion across the force. As of March of this year, the Army had conducted 83 Project Inclusion listening sessions with over 4,700 attendees. Separately, the Army reviewed its policy on official photos and removed official photos from all promotion boards. The Army later redacted race, ethnicity, and gender data from Soldier Record Briefs in accordance with the Secretary of Defense's direction. The Army is building relationships with influencers in diverse cities and communities to better acquire, develop, employ, and retain the best talent across the entire nation.

Quality of Life (QoL) Initiatives

Putting people first also means creating a duty and installation environment that allows Soldiers to thrive. The Army continues to prioritize the QoL focus areas identified in 2019. The COVID era only reinforced how essential each of those initiatives is to the well-being and readiness of our Soldiers and their families.

Housing and Barracks. We continue executing the Army Housing Campaign Plan to shape policies, procedures, and processes at every echelon. The Army implemented 14 of the 18 tenets of the Tenant Bill of Rights in its Residential Communities Initiatives (RCI) projects. We expect the remaining four (common tenant lease, 7-year maintenance history, dispute resolution and rent segregation) to be available at the majority of installations with privatized housing by June 1, 2021. We implemented mechanisms that hold privatized companies accountable to residents for proper maintenance and customer service, hired additional personnel to provide quality assurance oversight, and implemented 100 percent change of occupancy inspections and quality assurance checks. To address environmental hazards (mold and lead), we developed educational materials, a response registry, and policies for habitability and displaced residents. Through the RCI, we are committing over \$1.8 billion and reinvesting another \$1 billion to improve residential housing. Additionally, the Army is projected to invest over \$10 billion in the next 10 years, in both Restoration & Modernization and Military Construction funds, which will renovate or replace more than 1,200 barracks for all components and eliminate sub-standard barracks.

Healthcare. Army Medicine is partnering with the Defense Health Agency to deliver the best care for our beneficiaries across our installations. We are focusing on readiness as the Military Health System reforms. We will emphasize operationally oriented training, modernized capabilities, and innovative operational concepts. We are grateful to Congress for increases in Health Professional Officer special pay caps. This necessary investment ensures Army Medicine can recruit and retain the best quality healthcare professionals for the sustainability of the force.

Childcare. Childcare professionals serve on the front line of the Army's response to the COVID-19 pandemic as they allow mission essential personnel to maintain Army readiness. The Army has a multi-pronged strategy to maintain, and in some cases, increase access to care. With continued Congressional support, we plan to build 21 additional Child Development Centers by FY30, adding approximately 4,000 spaces.

We appreciate Congressional support for the three centers funded in FY21, two in Hawaii and one in Alaska. We continue to invest in these professionals, adjusting compensation to recruit and retain quality staff. We are incentivizing the family child care program, like a \$1,000 bonus for new providers and for families that stay in the program after a move. We implemented revised DoD priorities for childcare to grant more access to military families. Finally, we continue to invest in fee assistance to buy down the cost of off-post care when on-post care is unavailable.

Spouse Employment. With the support of Congress, the Army continues to make improvements in spouse employment. The Army reimburses up to \$1,000 for professional licensing and certification in a new state, with Army Emergency Relief offering an additional \$2,500. We thank Congress for its efforts to bolster the support of individual states in granting reciprocity. We streamlined the Home-Based Business application and approval system, improved policies for military spouse hiring preference, strengthened the Employment Readiness Program, and made the transfer of non-appropriated fund employees between installations easier. We continue to work with the Office of the Secretary of Defense (OSD) to promote workforce development scholarships, improve state license reciprocity and professional license compacts, and reduce overseas employment barriers.

Permanent Change of Station (PCS) Moves. Soldiers are now receiving PCS orders an average of 120 days before their report date, an improvement of 30 to 90 days.

Families can now claim 100 percent of their costs for reimbursement when conducting a personally procured move. Our development and launch of the “Army PCS Move” app and automation of several business processes, including the Smart Voucher program, are helping families research, book movers, track progress, and file claims, expediting reimbursement. Though COVID-19 heavily impacted last summer’s peak PCS season, we still executed over 70,000 moves with a 95 percent satisfaction rate.

21st Century Talent Management System

The Army continues to refine and implement its 21st Century Talent Management System in order to effectively acquire, develop, employ, and retain talent. We are maximizing the potential of each Soldier. We are evolving our marketing and recruiting with initiatives like Army Hiring Days and the “What’s Your Warrior?” campaign to bring in the best talent from across the country, including cities and communities with populations who may be unfamiliar with the opportunities military service affords. This year the Army launched cutting-edge digital talent initiatives. Our Army Artificial Intelligence Center partners with Carnegie Mellon University to grow data engineers and data technicians, while our Software Factory leverages the extraordinary existing talent in our Army to grow coders to solve Army problems.

At the heart of the Army’s 21st Century Talent Management System are new approaches, systems, and processes that leverage deep data about unit needs and Soldier knowledge, skills, behaviors, and preferences. The Integrated Personnel and Pay System—Army (IPPS-A) is on track to go live across all three components by the end of this calendar year. Release 2 is complete, having brought IPPS-A to the Army National Guard across 54 states and territories. Release 3, currently in testing, will integrate the active and reserve forces and complete the Army’s transition to a single system across all components capable of identifying needed talent and managing Soldier careers from accession to transition.

Talent management starts with having the right Army leaders at the battalion and brigade-level. These are the Army’s most consequential leadership positions in terms of affecting retention and attrition. In the biggest change to the Army’s command selection process in fifty years, the Army now uses a Commander Assessment Program to select future battalion and brigade commanders, as well as command sergeants major. This intensive five-day program evaluates individuals for their temperament, cognitive fitness, physical health, and leadership skills. We are also expanding to build a system to assess and select our Army Acquisition Corps civilians at the same echelons. We are putting the right people in the right place at the right time to remain ready today.

Ready Today

The Army stands ready today to compete globally and fight and win the Nation’s wars in support of the Joint Force. This is only because we recognized six years ago that readiness had declined precipitously after three years of reduced funding and uncertain budgets. Since then, and funding from Congress, we rebuilt tactical readiness and built strategic readiness. However, readiness is fragile. We require continued support to maintain it, in order to reliably meet the needs of combatant commands without overstressing our people.

People are the Army’s most important weapon system. The Army represents 25 percent of the Defense budget, 35 percent of the active force, and 45 percent of the active and reserve forces, but meets over half of global demands. Today, the Total Army supports the Joint Force by supplying Soldiers to combatant commanders in more than 140 countries. Over 69,000 Soldiers are in the Indo-Pacific, including over 25,000 forward deployed on the Korean peninsula. Over 30,000 Soldiers are in Europe supporting NATO and the European Deterrence Initiative, including the forward command post of our newly reactivated V Corps. We remain dedicated to our counterterrorism and train, advise, assist missions, providing over 21,000 Soldiers in support of the U.S. Central Command theater. In our Nation’s Capital this year, over 26,000 National Guard Soldiers mobilized from 28 states to assist with medical evacuation, communications, security, logistics and safety support. Last year, we executed 64 brigade-equivalent deployments and moved 45 thousand pieces of equipment through 55 ports of embarkation/debarkation in support of worldwide missions.

This past year highlighted the need for the Army to defend the Nation at home as well as abroad. In response, the Army continually demonstrated its capability and capacity to provide timely and effective support in crisis. The COVID-19 pandemic expanded the Army’s existing mission set as DoD’s leader in protecting the warfighter from biological threats and investigating infectious diseases that threat-

en public health. Since last March, Army scientists, medical professionals, engineers, and logisticians from all components have deployed nationwide to aid COVID prevention and response efforts. For its vaccine development and distribution initiative, America turned to an Army logistician to lead operations. Our National Guard and Reserve units across America supported both neighbor and nation in an unprecedented level of mobilization, not only for COVID support, but in response to civil unrest, hurricanes, and wildfires, all while continuing to train for wartime missions.

In 2020, the Army demonstrated strategic readiness through its series of DEFENDER exercises, despite the constraints of a pandemic environment. Strategic readiness involves installation capabilities to mobilize, train, and deploy formations and then sustain them from the homeland. DEFENDER-Pacific 2020 witnessed the deployment of combat credible forces across the breadth of the Indo-Pacific theater from Guam and Palau to the Aleutian Island chain and mainland Alaska. Under the command and control of U.S. Army Pacific, combined joint forces executed strategic readiness operations that included cargo delivery, forcible entry operations, rapid infiltration of High Mobility Artillery Rocket System (HIMARS), operational maneuver of Army watercraft, and fighter combat patrols. DEFENDER-Europe 2021 is currently underway with over 30,000 multinational forces from 27 nations conducting nearly simultaneous operations across 30 training areas. This year's exercise will incorporate Security Force Assistance Brigades, the Army's new V Corps, and U.S. Air Force and Navy assets. DEFENDER-Europe 21 is led by the Army's newly consolidated U.S. Army Europe and Africa Command.

The foundation of Army readiness is our people. The Army is moving to a foundational readiness model that prioritizes the training of individuals and small units at the company level and below. The best combat units in the world ensure their individuals and small units are masters of their craft. To foster individual readiness, the Army is also investing in holistic health and fitness. We continue to study the impact of the Army Combat Fitness Test in accordance with Congressional guidance in order to better connect individual fitness with combat readiness. A solid foundation of readiness enables unit agility and provides the greatest return on an investment of limited time and resources. We will continue to use the combat training centers to bring these highly trained, disciplined, and fit teams together for large-scale collective training that validates the combat effectiveness of our battalions and brigades.

The Army must balance the continuous demand for current readiness from combatant command requirements with the imperative to secure future readiness, all without overly stressing our people or our equipment. To this end, the Army developed, tested, and rehearsed a new unit lifecycle model that will go into effect October 2021: the Regionally Aligned Readiness and Modernization Model (ReARMM). ReARMM will harmonize historically conflicting Army priorities. It will take care of people by reducing operational tempo and maximizing predictability and stability to commanders, Soldiers, and families. ReARMM will sustain readiness by carving out dedicated windows for building readiness at echelon while aligning units with primary regions and functions.

Regional alignment provides units deep wells of knowledge on the terrain, culture, and people where their units are most likely to operate. Joint force commanders also gain by leveraging habitual, trusted relationships between Army formations and Allies and partners. Finally, ReARMM will facilitate modernization by giving units dedicated windows to integrate new equipment, reorganize formations, and train on new doctrine. Adopting this model transitions the Army from small, incremental, evolutionary modernization of platforms to large-step modernization of our formations.

Army Modernization—Transforming for Tomorrow

The Army faces an inflection point that requires innovation, creativity, and entrepreneurship in the application of combat power. The battlefield is increasingly faster, more lethal, and more distributed. Overmatch will belong to the side that can make better decisions faster. To meet emerging challenges, the Army is transforming to provide the Joint Force with the speed, range, and convergence of cutting edge technologies that will generate the decision dominance and overmatch required to win the next fight. We are leading the way in developing and fielding advanced technology in support of the Joint Force.

The Army's materiel modernization transformation—what we fight with—is based on the six modernization priorities announced in 2018: Long Range Precision Fires, Next Generation Combat Vehicle, Future Vertical Lift, the Army Network, Air and Missile Defense, and Soldier Lethality. The Army's conceptual transformation—how we fight—begins with our Multi-Domain Operations concept, which we are currently turning into doctrine. The Army is using Project Convergence, our campaign of

learning and annual capstone event, to shape future concepts and capabilities. By 2035, the Army will realize its vision of a multi-domain force.

The Army is committed to seeing our signature materiel modernization efforts through to completion. Many are coming on line according to, or ahead of, our accelerated development schedule and being delivered to our Soldiers. Through continuous reform efforts, we have been able to redirect scarce resources to these key modernization efforts; however, we could not achieve this without Congressional support and authorities. Army Futures Command is providing unprecedented unity of effort across the modernization enterprise, having changed our business model and culture through public-private partnerships and a focus on Soldier-centered design. This allows us to gain immediate operator feedback, accelerating the development process and ensuring new systems are effective in operational environments. These reforms, combined with early experimentation through Project Convergence, are paying significant dividends. Judicious use of Middle Tier Acquisition and Other Transaction Authorities enable progress from characteristics to fielded capabilities in as short as three years, versus the five to seven years it took just to prescribe requirements in the past.

Long Range Precision Fires

Long range precision fires provide the capability to penetrate Anti-Access/Area Denial (A2/AD) environments, suppress air defenses and strike maritime targets at range from land, and establish our own A2/AD capability to open windows of opportunity for the Joint Force to exploit. In 2019, OSD directed the Army to develop a ground based long-range hypersonic weapon. In FY23, the Army will field the first Long Range Hypersonic Weapon (LRHW) firing battery. The Army is also developing a ground-launched, Mid-Range Capability that will complement the LRHW and the Precision Strike Missile (PrSM) capabilities. The PrSM is on schedule to conduct its maximum range test in 3QFY21 and deliver 30 missiles in FY23. It will provide greater range, lethality, and survivability at a lower cost per shot than ATACMS. The Extended Range Cannon Artillery remains on schedule for delivery in FY23. It will establish overmatch against peer adversaries in the close and deep operational maneuver areas with an extended range out to 70km.

Next Generation Combat Vehicle

Next generation combat vehicles will increase the firepower, speed, and survivability of land forces, allowing them to maneuver into positions of advantage in the future operational environment. After rebaselining the Optionally Manned Fighting Vehicle (OMFV) program last year, the Army issued the final request for proposal for the concept design phase on December 18, 2020. OMFV is an example of how our new acquisitions process enabled the Army to learn early and recover before programs become too big to fail. The Robotic Combat Vehicle (RCV) effort envisions an unmanned platform that provides decisive mobility, lethality, survivability, and increased situational awareness to formations. RCV will undergo increasingly rigorous experiments and capability demonstrations with a decision to procure by FY24. The Armored Multi-Purpose Vehicle (AMPV) is an adaptable and more survivable multi-variant vehicle that replaces the 1960s era M113 Family of Vehicles. Mobile Protected Firepower (MPF) is an armored combat vehicle that will provide, large caliber, long-range direct fires in support of Infantry Brigade Combat Teams. The first unit equipped with MPF will be in FY25.

Future Vertical Lift

Future Vertical Lift platforms and technologies increase the maneuverability, range, endurance, lethality, and survivability of Army aircraft, providing joint commanders with increased operational reach and effectiveness against near-peer competitors. Our new acquisitions process has put the onus on industry to innovate and invest early, allowing the Army to “fly before we buy.” The Future Armed Reconnaissance Aircraft (FARA) closes the gap left by retirement of the Vietnam-era Kiowa. Two prototypes will fly in FY23 followed by a year-long flight demonstration. The Future Long Range Assault Aircraft (FLRAA) will replace the UH60 Blackhawk with increased speed, range, payload, and endurance. We expect initial FLRAA prototypes in FY25. Future vertical lift will leverage advances in Unmanned Aircraft System (UAS) technology to develop Air Launched Effects (ALE) with a wide array of payloads and extended communication mesh networks with a fielding plan in FY24.

Army Network

The Army network modernization underpins Project Convergence as the Army’s contribution to Combined Joint All-Domain Command and Control. It provides necessary information technology (IT) infrastructure to link the right sensors to the

right shooters through the appropriate command and control node. In FY21, we will field more than 150 units with new technologies while simultaneously developing the next capability set of equipment. The Army is also modernizing current Global Position System (GPS) receivers to meet current and emerging threats by providing the Joint Force with advanced assured precision, navigation and timing (APNT) systems. Included are modernized receivers that meet congressional mandates to transition to M-code GPS and integrate alternative APNT technologies for our ground combat platforms, dismounted Soldiers, precision weapons and munitions, and aviation systems. We are fielding the first generation mounted APNT systems to our forward deployed formations with a second generation ready not later than FY23. Additionally, the Army continues to invest in space-based technologies that close operational gaps in deep sensing and targeting activities. We are coordinating with partners in the Intelligence Community and private industry to enhance Army access to Low Earth Orbit (LEO) space-based sensing and link with national-level capabilities to provide tactical-level sensor to shooter capability to combat formations.

Air and Missile Defense

Air and missile defense capabilities defend the Joint Force, allies, and partners against manned and unmanned air and missile threats. The Army's integrated air and missile defense capabilities will protect joint forces from adversary aircraft, missiles, and drones to protect the force and enable operations. This includes both theater systems and tactical/short-range air defense like the Maneuver-Short Range Air Defense (M-SHORAD) which defeats aerial threats to the maneuver force with a mix of kinetic capabilities. The Rapid Capabilities and Critical Technologies Office (RCCTO) is developing a Directed Energy (DE) M-SHORAD variant that utilizes a 50kW class laser. We will field four DE prototypes for experimentation and further development. Indirect Fire Protection Capability (IFPC) will defend fixed and semi-fixed assets primarily against cruise missiles and Unmanned Aircraft Systems as well as fixed and rotary wing aircraft. Based on the authorization in the 2021 NDAA, the Army is currently preparing two Iron Dome batteries for operational deployment at the end of FY22. This spring the Army will conduct a shoot-off to inform our decision on the enduring IFPC solution. RCCTO is also working on two IFPC variants, a High Energy Laser (HEL) and a High-Powered Microwave (HPM). The IFPC-HEL uses a 300kW-class HEL to defeat Rocket, Artillery, and Mortar (RAM) threats and is on track for demonstration. The IFPC-High-Powered Microwave is being developed with the Air Force to produce the Tactical High Power Microwave Operational Responder (THOR) in FY21 with a prototype expected in FY24. The Integrated Air and Missile Defense Battle Command System (IBCS) initial operational capability is 3QFY22 with fielding. IBCS is a revolutionary command-and-control system that streamlines sensor to shooter linkages for air and missile defense engagements—and once fielded will enable optimized employment of the Patriot force. This enhanced tracking system delivers an unambiguous view of the operating environment, allowing commanders and air defenders to make critical decisions within seconds. The Lower-Tier Air and Missile Defense Sensor (LTAMDS) will deliver the next generation sensor that leverages the capabilities of the Patriot Missile Segment Enhanced (MSE) interceptor and is fully integrated into IBCS.

Soldier Lethality

Soldier Lethality improvements to weapons, sensors, body armor, and training will deliver decision dominance and overmatch at the level where it matters most, allowing individual Soldiers to quickly understand and react to emerging situations. With ReARMM, we are incorporating Guard and Reserve units into the fielding schedule much earlier and more broadly than in past modernization efforts. The Army seeks continued Congressional support for the rapid prototyping, development, and procurement of the Next Generation Squad Weapon (NGSW) Rifle and Automatic Rifle, Enhanced Night Vision Goggles (ENVG), Integrated Visual Augmentation System (IVAS)—Heads-Up Display (HUD) 3.0, and the Synthetic Training Environment (STE). By 1QFY22, we'll equip the first unit with IVAS. In 4QFY22, we will equip the first unit with the Next Gen Squad Weapon Rifle and Automatic Rifle, as well as General Purpose Ammo. STE efforts that complement IVAS include the Squad Immersive Virtual Trainer (as part of IVAS) and the STE Information System that includes: One World Terrain, Training Simulation Software, and Training Management Tools.

In addition to our six priorities, the Army understands the need for considerable investment in long-term research to deliver science and technology solutions. The Army is aligning its laboratories towards modernization and partnering with over 250 research institutions. The Army's priority research areas are: disruptive

energetics, Radio Frequency (RF) electronic materials, quantum research, hypersonic flight, artificial intelligence, autonomy, synthetic biology, material by design, and advanced manufacturing.

The Army is also investing in deep sensing and analysis to provide intelligence support to long range precision fires and commanders' situational awareness during Joint All-Domain Operations. We will continue to drive intelligence modernization by acquiring capabilities and capacities across the Space, Aerial, Terrestrial, and Foundation Layers nested with and in support of the Army's six modernization priorities. We will continue to leverage the Intelligence Community (IC), other Services', and commercial partner enterprise-level Intelligence, Surveillance, and Reconnaissance collection programs to provide timely, accurate, and relevant intelligence to support Army targeting efforts and enhance commanders' decision making.

The Army is not just modernizing concepts and materiel. We require continued budget support to modernize infrastructure and execute workload in our Organic Industrial Base (OIB) of depots, arsenals, and ammunition plants, along with our power projection and Mobilization Force Generation Installations to better project power from and into contested environments. We must be able to address the risk of new and emerging cyber, information, and physical threats that can thwart our ability to project power by disrupting installation operational capabilities and the supply chains supporting our forces, whether from malign actors or nature. Our installations must be resilient to disruption and modernized in support of the modernized Army force. The Army is investing significant time and resources to mitigate the effects of climate change on our installations. We are establishing energy and water resilience, efficiency, and affordability across our installation enterprise. In the past five years, energy programs, partnerships and initiatives recognized a cost avoidance or savings of more than 14 percent, every installation has added a full-time energy manager position, and 16 of 26 Army OIB depots, arsenals and ammunition plants have transitioned from fossil fuels to clean energy alternatives. We are also partnering with private industry to implement energy and utility savings contracts that maximize the latest technology to drive efficiency and reduced costs, with 99 agreements currently in execution.

The Army is also not modernizing in a vacuum, but in partnership with our sister Services. We have completed two Army-Air Force Warfighter Talks and one Army-Air Force-Navy joint session to ensure the Army's Project Convergence initiatives remains synchronized with the Air Force's Advanced Battle Management System and the Navy's Project Overmatch to meet the unique needs of each Service. As we work to stand-up a Multi-Domain Task Force (MDTF) in Europe later this year, our Indo-Pacific aligned MDTF continues to synchronize effects with the Joint Force during multiple exercises. The MDTF's All-Domain Operations Center enables Joint training, to include hosting Carrier Strike Group-3 for the Navy's Fleet Synthetic Training—Joint exercise and connecting to the Navy's Continuous Training Environment network. During INDOPACOM's Pacific Fury 21, the MDTF validated its ability to virtually synchronize long range fires and effects with the Joint Force. The MDTF will participate in USINDOPACOM's upcoming Northern Edge and Joint All Domain Command and Control (JADC2) Simulation Experiment (SIMEX) in May before rotating into the Indo-Pacific later this summer to participate in joint exercises with PACAF, PACFLT, and MARFORPAC.

Strengthening Alliances and Partnerships

America does not fight alone. Alliances and partnerships are among the greatest sources of our military strength. This global landpower network is DoD's foundation for competition, creating inroads and maneuver space for Joint and whole-of-government strategic engagement. As a people organization, the Army is uniquely qualified to maintain and expand this vital network, especially given that partner militaries and their senior leaders are predominately land force-centric. Our roadmap for building and strengthening relationships spans a range of activities that include military and key leader engagements, education and training programs such as the Department of State's International Military Education and Training (IMET) and International Professional Military Education (IPME), security assistance through Title 22 Foreign Military Sales, and advise and assist capabilities. Boots on the ground deter would-be adversaries, and small, scalable engagements with our Allies and partners open doors to the access and presence we need to compete effectively. The Army's new Security Force Assistance Brigades (SFAB) demonstrate our commitment to alliances and partnerships and our capability to compete.

Last year we completed the activation of all six SFABs, five in the Regular Army and one in the Army National Guard. Since then, 5th SFAB has already completed missions with multiple partners across the Indo-Pacific theater, including elements of the Thai, Indonesian, and Indian armies. Later this year, many of those partners

will join their American counterparts in combined exercises at the National Training Center. Engagements such as these are vital, not only for interoperability, but in recognition that Cold War-era exclusive allegiance to a single great power no longer exists. Many if not all of our allies and partners maintain concurrent relationships with both the United States and our competitors and potential adversaries. We cannot take for granted these relationships and the vital access and presence they provide us.

CLOSING

The men and women of the United States Army are the greatest Soldiers in the world. The Army is cultivating cohesive teams, maximizing talent, sustaining tactical and strategic readiness, progressing through our greatest transformation in over 40 years, and strengthening our alliances and partnerships. We are leading the way in developing and fielding high technology for the Joint Force. We are opening operational and strategic doors in the Indo-Pacific and Europe. We are succeeding through calibrating our force posture around the globe to assure our partners and deter would-be adversaries. And we need your continued support. With timely, adequate, predictable, and sustained funding, we will remain ready to fight and win our Nation's wars—now and into the future.

Senator TESTER. Thank you, General. Appreciate the comments of you and the Secretary. First off, I want to thank the Army, especially the soldiers of the National Guard, for their efforts in supporting the capital security mission over the last several months. While there has been discussion on a much needed supplemental appropriations bill to cover these costs, I am getting nervous about what will happen if those funds are not approved and approved soon.

So, Secretary Wormuth, can you give us some insight on how much the Army is insured across its components from that mission? What sort of tradeoffs you are going to have to make as you push funds around to cover those costs in the short term?

Secretary WORMUTH. Yes, Chairman Tester. Right now, the resources basically to pay for the support that the National Guard has provided to the Capitol, and I want to take a minute also to just recognize their enormous contribution, is about \$450 million. So that is the bill associated with the support that they provided in this execution year.

If we are not able to cover that, right now the Army Guard is basically in a situation where they are concerned about their ability to pay for training for the rest of this year. So without that, those resources, the Guard, for example, and you know, and this is in States all around the country, will find themselves with training issues that are going to affect, you know, both their aviation readiness, for example, their ability to have readiness with their ground vehicles, they are going to have, you know, again, many of the training exercises that they have put off because of everything else they have been doing in support of COVID, in support of the Southwest border, in support of being here in the capital.

All of that regularly scheduled training has been postponed and now is at risk of not being able to be funded. And so it is definitely a concern and something that will impact our Guard all around the Nation.

Senator TESTER. So has training been postponed already?

Secretary WORMUTH. Senator, no. My sense of the situation is at this point, they have been—they are in a position where they don't want to with—spend funds for the remainder of the year because then they will be basically at a point of being in violation of the

Anti-deficiency Act. So it is really looking at the summer months, July, August, September.

Senator TESTER. That is when it will kick in?

Secretary WORMUTH. Yes.

Senator TESTER. That is good to know. General McConville, one proposal that is being floated openly is the idea of a standing military quick reaction force for capital security. How do you feel about this mission, and do you think it is appropriate for the Army?

General MCCONVILLE. Well, my best military advice, Senator, is law enforcement should be conducted by law enforcement agencies and the military should be the last resort when it comes to law enforcement.

Senator TESTER. I appreciate your direct answer to that. Thank you very, very much. Shifting to the Pacific, where we are driving a lot of modernization priorities to fight China. The Army's going to need helicopters with increased range and speed and missiles, very long ranges. This year's budget request includes an increase in investments in the Army's modernization priorities from \$9.5 billion to \$11.3 billion. General McConville, can you give a quick overview of your increased investments in fiscal year 2022 and how they support the shift to the Pacific?

General MCCONVILLE. Yes, Senator. We have about \$1.9 billion focused on the Pacific. That does not include the pay for the 69,000 soldiers that operate the Pacific. The key to what we are providing the combatant commanders out there is we provide the new organization Security Force Assistance Brigades, which allows them to work closely with our allies and partners in the region and build up their capacity. We are developing a multi-domain task force that provides really two capabilities, long range precision effects, which is very, very important in the competition, because they can do intelligence, they can do information operations, they can do cyber electronic warfare, and space operations.

They also have the capability which we are developing, it is long range precision fires, which helps with deterrence because it gives us the ability to potentially penetrate any type of anti-access area denial capability that is set up by potential competitors in the region. We are also doing multiple exercises, so we have a chance to work with our allies and partners, and we are present throughout the region, which is very, very important to reassuring our fellow land components that will be there when they need us.

Senator TESTER. Thank you, General. Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman. The Army's fiscal year 2022 budget request for research and development continues to focus on six modernization priorities, yet the 2022 budget proposal for research and development funding is \$1.3 billion less than last year. Madam Secretary, now that you have taken the helm and begun to review these modernization efforts, are you considering any changes to the focus areas or the approach that the Army has taken to its modernization priorities?

Secretary WORMUTH. Vice Chairman, Generally, I am very comfortable with the modernization priorities that the Army has at this time. And as General McConville was just speaking to, I think the kinds of capabilities we are looking at in terms of long range precision fires, future vertical lift, you know, next generation vehi-

cles, and air and missile defenses also are all very appropriate to the kinds of near peer challenges that we are facing. So broadly speaking, I am comfortable with where we are heading.

I think, you know, we are going to have to continue carefully balancing between our modernization emphasis while also maintaining our readiness and taking care of our people. But I think we are going in the right direction on modernization, sir.

Senator SHELBY. Would you deem research and development a very high priority, period?

Secretary WORMUTH. Yes, it is very important that we continue to emphasize development.

Senator SHELBY. For tomorrow's weapons—

Secretary WORMUTH. Yes, exactly. And we have got about 74 percent of our R&D account focused on our 31 plus 4 priorities for modernization.

Senator SHELBY. General McConville, could you provide a General overview, knowing we are not in closed session, on the progress of the Army's six modernization priorities and outline what risk that the Army is accepting by reducing its research and development funding as it pursues those priorities? It is a dangerous road, you know.

General MCCONVILLE. Yes. Well, as the Secretary said, we have done some tremendous work, we call it night court, to take a look at our modernization priorities and make sure that we align the resources with them and the research development. So we have moved a tremendous amount of money, about 74 percent of our research and development funds focused on those modernization priorities. They are moving along very, very well. As you know, Senator, hypersonics is moving extremely quickly. We expect our first battery and in 2023, our mid-range capabilities, moving along very capability, we expect to be able to send ships in 2023.

Our present strike missile capabilities is moving along very capable. We expect to have the first battery around 2023. Our next generation combat vehicle is moving out. That is going to come in about 2028. And future vertical lift, we have two different aircraft that we are developing, both are flying models right now. Again, this is exceptionally fast, delivering that to the troops. We want to fly before we buy and that is coming in around 2028. We are making great strides in air and missile defense so we can counter unmanned aerial systems. We are making great strides in convergence with our network and bringing together our sensors and shooters, so we have the overmatch we need.

And finally, for our soldiers, we are getting them the lethality they need through an integrated visual augmentation system, a new carbine that can be much more lethal on the battlefield, and a new squad automatic weapon system. So we are very, very pleased with the progress that we are making on the six modernization priorities and really very pleased the way we are working with industry in a different way.

Senator SHELBY. Sir, the Army's Rapid Capabilities and Critical Technologies Office is leading the development of the long range hypersonic weapons. This program is scheduled to conduct several test events in 2022. What do you expect to learn, that you talk about in this session today, to the test of the schedule next year,

and how will this data from test events lead to decisions for the program? And how is development going on the thermal protection system, which I think is very important there?

General McCONVILLE. Well, Senator, as you know, we had a very successful test last year. We are getting ready to do another test over the upcoming months. That test is, again, is going to confirm a lot of the systems. It is going to make sure that the range—that, you know, we are going to get a much better idea of what type of range the system can work. We know the precision is there. So what we are going to take away from the testing is more assurity when it comes to what is the range, you know, the max range, the system, what is the precision of the system, and so far, we are very pleased with the progress.

Senator SHELBY. General, how is the development going on in the sensor integration display for the heads up display component of the system?

General McCONVILLE. Well, the heads up display for—I want to make sure—

Senator SHELBY. The integrated visual augmentation—

General McCONVILLE. Well the integrated visual augmentation system is transformational. It is coming along very, very well. It is probably one of the most transformational systems that we have in that we are able to fuse night vision capability with an infrared capability. But more importantly, it provides situational awareness to our soldiers that we have never had before. And the future will be that soldiers will be able to fight with this system, they will be able to rehearse with this system. They will actually be able to train with this system in virtual reality.

Senator SHELBY. Madam Secretary, quickly, in the area of production, some of us are concerned that some of the proposed delays in building things with our industrial base, you know, this could be a problem. What is the Army doing to ensure that the industrial base will remain viable for these programs if you slow-walk some of them?

Secretary WORMUTH. Well, Senator, very quickly, I would say I think the primary thing we are doing is having Army Materiel Command undertake a 15 year plan to essentially try to align our future requirements and make sure that our organic industrial base and the commercial industrial base can meet those needs over time. That is the primary—

Senator SHELBY. Keeping that industrial base together is very critical, is it not?

Secretary WORMUTH. Absolutely. We have to be able to have that industrial base to make all of the new next generation systems that the Chief was mentioning. And as you know, ensuring, frankly, the cybersecurity of our suppliers and our industrial base is also a key issue that we have to get after.

Senator SHELBY. Part of it. Thank you. Thank you, Mr. Chairman.

Senator TESTER. Thank you, Senator Shelby. Senator Leahy.

Senator LEAHY. Thank you very much. And thank you for having the hearing. And thank you both for appearing. General McConville, You may find it unusual that in an Appropriations committee meeting there may be questions that sounds parochial,

but I think this has a broader meaning. The Vermont National Guard's Mt. Calvary Battalion opened every position to women, it can recruit women directly to any position. I believe it is the first Army National Guard Cavalry Unit at that level in the Nation do so.

I visited Bravo Troop from that battalion. They were here at the U.S. Capitol following the January 6th insurrection. And now they are deployed overseas. It is a remarkable feat I think. Anyway, I am very impressed by it. The challenging nature reminds me why many of us supported the removal of barriers to women serving as well as all sorts of soldiers of different walks of life. I have always felt the Army is strongest when it finds the best soldier for the job, not the soldier who meets certain preconceived notions.

So how does the Department's budget request support the recruitment and retention of soldiers from diverse backgrounds to a unit like Vermont's Mt. Calvary?

General MCCONVILLE. Yes, sir, I think the point is well taken. You know, we are in a competition—in fact, we are in a war for talent in the United States. We want the best and brightest to come into the military. We want the military to represent the diversity of the Nation. And we are doing that by having the right leadership with the right background. So if you want to take a look and see who is commanding, recruiting command is a person of diversity so people can look up to see people like them.

Our recruiters come with diversity so someone can talk to them if they want to be in the infantry, if they want to be in the armor. And from where we sit is we want everyone to have an opportunity, and we are appealing to them, and we are giving opportunities at every level so people can look up and see people who look like them. And that is how we keep the diversity in the Army.

Senator LEAHY. I appreciate that. I look at a place like New England where it is getting harder and harder to recruit. I would urge you to empower local recruiters and Adjutants General as much as you can. Madam Secretary, the U.S. military has long been at the forefront of energy revolutions. We all know making energy cheaper and less supply line intensive makes a military force more capable.

The President has been investing in clean energy and energy efficient technology a priority for every part of the U.S. Government. This Committee has even supported research with the Army Corps on energy efficiency technology over the years because it would free up money for other things. How does your request support development of clean energy and energy efficient technology?

Secretary WORMUTH. Thank you, Senator. Within our budget, we are trying to do a few different things to try to help us advance clean energy, and particularly in terms of our vehicle fleets. You know, we are exploring where we can look at hybrid vehicles potentially, how we can increase electrification in our vehicle fleet. We are looking at trying to use battery powered where we can. So there are a variety of efforts that we are trying to look at across all of our different types of vehicles to work with clean energy.

We are also, you know, again, looking at other ways that our installations can be more energy efficient. We are doing quite a bit to look at where we can use solar power, for example, or wind

power at our installations. I was just at Fort Hood and saw the solar panel fields there, for example. So we have a number of different places where we are trying to advance and go more towards clean energy.

Senator LEAHY. And the solar panel field, you wouldn't have seen a few years ago?

Secretary WORMUTH. That is probably true. I actually grew up in Texas and I don't recall seeing solar panels there.

Senator LEAHY. Thank you. Mr. Chairman, I have a question which I will submit for the record for the General. It is about—it is a little bit involved on construction issues, but I really do want an answer. And I know you will supply one.

General MCCONVILLE. Yes, Senator, I sure will.

Senator LEAHY. Thank you.

Senator TESTER. Thank you, Senator Leahy. Senator Moran.

Senator MORAN. Chairman, thank you. Madam Secretary, General McConville, welcome. Congratulations on your new position as Secretary, and for your long distinguished service, General McConville. I am going to visit Germany and Poland in the near future, and I will see transnational training exercises focused on Russian deterrence. We face lots of challenges around the globe. Our focus is sometimes shifted by necessity and by changing circumstances. What should be my take away? What do you hope I see and come back confirmed of the importance of what we are doing?

Secretary WORMUTH. I want to make sure my mic is on. Well, Senator, I think what I would hope that you would see is, is a couple of things. First of all, I hope you will see the close partnerships we have with our land forces in Europe. And obviously, you know, NATO (North Atlantic Treaty Organization) is our center of gravity there. You know, our enhanced forward battalions with NATO are very important. And from an Army perspective, I hope you will see the value added that the forward element of the 5th Corps that we have now put in Poland, what that is doing to again bring our partners together and present a strong deterrent to the Russians. That is what I would ask that you look. Chief may have additional—

General MCCONVILLE. I agree with the Secretary. I hope you see peace through strength, and that strength comes from a strong military, a strong Army, and strong allies and partners. And I was just over there last week. We hosted a conference for European armies, had 32 Chiefs of Staffs from all the countries coming together. They want American leadership. They want to be good allies and partners with us. They want to have a strong friendship.

And I think the way we deter others who wish us harm is by having all that come together. And in the training is important. Just like any professional team, you have got to train, you have got to rehearse, you have got to prepare, and that is where that strength comes from.

Senator MORAN. Thank you both. General McConville, given the rapid modernization of Russia and China's armed forces, I have some concern that the Army's budget dropped significantly below what is necessary to modernize a full brigade of Abrams tanks each year. If Congress provides additional funding for Abrams produc-

tion, can you assure us that you will keep the Abrams production, at least at the level of one brigade a year?

General McCONVILLE. What I can assure, Senator, is on my unfunded requirement list. And if we do receive additional money, we will prioritize that and go after those unfunded requirements.

Senator MORAN. What is our capabilities of ascertaining or making certain that the active and guard units that are scheduled to upgrade those tanks receive them on time?

General McCONVILLE. Well, that is why we want—you know, that is why it is part of my unfunded requirement is to make sure—you know, we have had to make some tough decisions in the Army based on priorities. And we are—when I look at the Abrams tank that is not legacy to me. I see that as an enduring requirement. We also have modernization requirements which are the six modernization priorities. But the Abrams tank is going to be here for a while. And we have incrementally improved it and we need it for the future. But we also need to modernize the Army. And we are going to have to make the, you know, tough decisions based on the resources we get. And we will do that on the priorities.

Senator MORAN. Secretary, digital design and engineering has become an important resource for weapon system development and sustainment. It has already proven its ability to increase sustainment efforts on legacy platforms and I think we will play a major role in the design of future defense programs. Can you discuss the importance of making these digital designs more accessible to service members to give them the tools to increase readiness on legacy combat vehicles? And how does the Department plan to invest in this new technology as we develop this next generation of warfighting platforms?

Secretary WORMUTH. Senator, what I would say is certainly incorporating digital designs into our prototyping and modernization process is very, very important. And frankly, we are trying to bring in as many different types of new techniques to help us be more innovative as possible. So, for example, I think that we are using digital design as we look at the new optionally manned fighting vehicle, for example. And there are undoubtedly other programs within our 31 plus 4 where we are making use of that. I have not been able to dive in-depth into how we are using digital design, but again, I know we are trying to be much more innovative.

We are collaborating with various universities, for example, with companies, you know, smaller startup companies in Austin, for example, where we have Austin—or where we have Futures Command. So we are very much trying to bring things like digital design into our process.

Senator MORAN. I hope to have you as a guest in Kansas where we can demonstrate that technology.

Secretary WORMUTH. I would welcome that.

Senator MORAN. Thank you, ma'am.

Senator TESTER. Thank you, Senator Moran. I will get you as you entered the room, Senator Shaheen.

Secretary SHAHEEN. Well, thank you, Mr. Chairman, and thank you, Secretary Wormuth and General McConville, for your service. One of the new potential areas of conflict, and certainly of a lot of other activities, is the Arctic. And so it is very important that we

know as much as possible and have as much research as possible about the Arctic. One of the labs in this country that does that research is in Hanover, New Hampshire. It is the Cold Regions Research and Engineering Lab. So can you just speak to whether, I guess this is for you, Secretary Wormuth, whether you think the Army Corps of Engineers labs are uniquely situated to confront the challenges that the Army and the joint force are going to be facing in the Arctic?

Secretary WORMUTH. Senator, I think, yes, the Corps of Engineer labs are very helpful to us as we explore these new environments and what kind of requirements they are going to present to us. The Arctic is absolutely becoming an arena of competition between the Russians and the Chinese, for example. You know, Russia in particular has been enhancing its military posture in the region. China is definitely engaging in exploration more oriented towards natural resources.

And as we think—as you know, the Army has put forward an Arctic strategy. And as we think about building that out and what kind of formations and gear that we are going to need, I think we will want to leverage the Corps of Engineer labs, and again, other, you know, partnerships with universities to help us think that through.

Secretary SHAHEEN. But yet the budget request cuts the Army's research and development. So can you speak to how we are going to continue the research that we need to do if we are making those cuts?

Secretary WORMUTH. Senator, I think, you know, again, I would want to look carefully at what exactly the labs have to offer, and the resources associated with that. I was not yet in the Secretary position, as you know, when our budget was made. But we have had to make very difficult choices. Again, as we balance readiness, people, and modernization, we have had to make some difficult choices. But I would certainly look into that and be happy to talk with you.

Secretary SHAHEEN. Thank you. General McConville, do you have anything to add to that?

General MCCONVILLE. Well, I do have is, as the Secretary said, you know, we have put a new strategy for regaining dominance in the Arctic. It is a place that we really haven't taken a hard look at. You know, we have got a great State of Alaska. We have troops up there. But we see us operating more in the Arctic than we have in the past. So we are going to have to have that capability.

We are developing equipment, we are developing organizations that can do that. We are going to recruit the right people that can operate in that environment, make sure they have the right clothing, and the right capabilities. But we see that as a place in the future that we need to be. And as I said, I have met with our European allies and the Arctic States are very interested in working with us on those capabilities.

Secretary SHAHEEN. Thank you. The enhanced night vision goggles, the vernacular ENVG, is currently being fielded and it has received really positive reviews. I know about this because we make it in New Hampshire, but I understand the fiscal year 2022 request is approximately \$218 million, which is less than what we had

been projecting. So can you tell me, does the Army still plan to make those investments for the ENVG in 2023?

General McCONVILLE. Well, Senator, as you know, those—the troops really like those goggles. They are extremely good. And, you know, we are developing two systems, the enhanced night vision goggles, Bravo, which that is called, which our troops—it is great investments. We are also developing the IVAS system, which is a more sophisticated system. But that enhanced night vision goggles process is still going to be around. It is very, very good. It fuses both night vision and flare capabilities. Some incredible videos out there of the troops talking about it. So we are committed to moving forward there. Again, there are tough decisions being made on the budget and they are reflected in our budget.

Secretary SHAHEEN. I have a question which I will submit for the record on IVAS (Integrated Visual Augmented System), but on Afghanistan just briefly because I have only a little bit of time left, will there be a change in our budget requirements for Afghanistan because we are going to be leaving earlier than anticipated? I understand we expect all troops to be out by the end of July.

Secretary WORMUTH. Senator, our budget reflects, you know, the expected savings from the retrograde out of Afghanistan. I think as the Department determines exactly what the posture is going to look at in support of the over the horizon requirements, you know, we may have to look at what the resources are going to be attached to that.

Secretary SHAHEEN. And can you tell me what the savings are?

Secretary WORMUTH. I don't have that—

Secretary SHAHEEN [continuing]. don't immediately put those dollars into the over the horizon.

Secretary WORMUTH. I don't have that number off the top of my head, Senator, but I am happy to take the question for the record and get back to you.

Secretary SHAHEEN. Okay, thank you. Thank you, Mr. Chairman.

Senator TESTER. Thanks, Senator Shaheen. Senator Blunt.

Senator BLUNT. Thank you. Thank you, Chairman. Secretary Wormuth, congratulations on your nomination and confirmation as Secretary. Look forward to the work you will be doing there. Our biggest base in Missouri is Fort Leonard Wood. It is in many ways the schoolhouse for a lot of the military right now, principally Army still, but I think on any given day, there are probably more people from different services there than any base in the country. I hope you can get that on your list to visit and you will find the community incredibly supportive of the fort and what happens there. And General McConville, thank you again for your service and for being here today. With the future budget necessities, I don't think that includes, is likely to include a basic combat training reduction or not. I would like both of your thoughts on that.

And if there is a basic combat reduction there, we are talking about Fort Leonard, where the original goal at Fort Leonard Wood was basic training. We have gone way beyond that, but still an important part of what happens there. There are three other basic training facilities. If there is a reduction, I think people representing those four facilities, certainly me, would advocate that

that reduction be proportional rather than eliminating training in one base.

So one, do you think there will be a reduction? And two, do you have thoughts on what would happen in those four bases in training if there is a reduction? General.

Secretary WORMUTH. Senator, to my knowledge at this time, we are not contemplating a reduction in basic training at this time, but I think, you know, certainly if we had to do that, it would be concerning. But I think we would want to look at what makes most sense in terms of efficiency and effectiveness in terms of managing our resources.

So I would want to look at the four places where we do basic training and basically run the numbers to see where, if we had to reduce basic training, how we could do that most efficiently. It might be that doing that proportionately would be most efficient, but it might be that it made more sense to perhaps consolidate our training in, you know, some less than all four locations. So I think I would want to look at that.

Senator BLUNT. General, do you have a view of that?

General McCONVILLE. Yes, Senator. My view is, as I discussed, you know, we have got an active strength of 485,000, a little over 1 million. We think that is required. We think the training to support that is required. And so we do not anticipate, unless we have some type of resource reduction, to cut basic training. I think we need the Army we have given the situation that we see around the world.

Senator BLUNT. Well, if you do cut a location, we could discuss at that time. But clearly, if you get into an up tempo, again, having to start another location from what would have become a dramatic reduction would make a difference. And while we are on Fort Leonard Wood, we have made substantial commitments there in the last four budgets toward the Fort Leonard Wood Community Army Hospital. It was the number—it was number one on the Surgeon General—on the Army Surgeon General's list and the overall Force Surgeon General's list for a long time. And we are well into that process.

I think the monies being requested for fiscal year 2022 to finish that hospital really matters to the base and really matters to the community. On the—General, as we withdraw from Afghanistan, what impact is that going to have on our rotation of forces which have been Afghanistan, Korea, Europe and elsewhere? Still thinking rotating—is the best way to handle that?

General McCONVILLE. I think, Senator, you know, what is being done is really a global posture review. We will take a look at what type of forces we need. There is some value in having rotational forces. There is value in having permanent forces. There is value in having what we call prepositioned stocks, so the troops rotate in and fall on those equipment. And we are in the process of—the Administration is having that discussion. And what we will do is lay out those options based on what it looks like. And so when you look at Afghanistan, there is discussions of what is over the horizon, you know, what does the future look like in the Middle East.

So that has to be looked at. The Administration is taking a look at what does the Indo-Pacific look like and then certainly what Eu-

rope looks like. All those will come into discussion, and we will provide the appropriate best military advice on how to accomplish that mission. But I do see some rotational forces. I don't see all rotational forces.

Senator BLUNT. Alright. At least one of the questions I will ask for the record would be as we pull the contingency overseas account into the regular budget, what impact that has on our flexibility when we have something we don't anticipate? And I am out of time, so I will ask that for the record and look forward to your response on that. Thank you, Chairman.

Senator TESTER. Thank you, Senator Blunt. Senator Baldwin.

Secretary BALDWIN. Thank you, Mr. Chairman. The upcoming JLTV (Joint Light Tactical Vehicle) recompetes provides an opportunity to seek upgrades and to improve the vehicle's capabilities. I am particularly interested in efforts to transition the JLTV to electric power trains, considering the advantages it would provide in future environments and because it would support the President's interests in promoting green energy. I know you just had a little discussion about electrification within the Army. Why is that JLTV program not pursuing a more aggressive transition to electrification? And is this something that you are considering for the recompetes?

Secretary WORMUTH. Senator Baldwin, again, I have not had the opportunity to dive deeply into some of these programs. I know that the follow on production for the JLTV is on track and we are looking at, you know, how to move forward with that particular contract. I would ask General McConville to try to speak to your question of how the Army has been thinking about it in terms of electrification efforts.

Secretary BALDWIN. Please.

General MCCONVILLE. I think the Senators, what we are seeing—you know, we have efforts going for electrification. We have got a reconnaissance vehicle that we are actually trying to make fully electric. These tend to be smaller vehicles rather than larger vehicles. So, you know, and there is value in that. And first of all, reduces our ability to divide fuel, which we like to do. That keeps, you know, trucks off the road in those type things. But they are also very, very quiet, which is helpful when you are maneuvering on the battlefield.

Some of the bigger vehicles in the joint light tactical vehicle—first of all, that is a great vehicle. It is very good for the troops. Is we are looking at probably a hybrid, you know, how do you reduce fuel in a hybrid? You know, and we are looking at bigger vehicles too. You go to hybrid first. We are concerned and we have people looking at electrification, but on the larger combat vehicles, what can you do in the near term? What can you do in the long term?

And in some cases, we are not sure we can get to fully electrification, but can we get to a hybrid that cuts fuel by 25 percent? Can we reduce how they operate at idle, which, you know, saves fuel? And so we have folks taking a look at that. But as far as going to a full electrification of that vehicle, I don't think we are there yet.

Secretary BALDWIN. Okay. On modernization, I know the Army is divesting from legacy programs to fund other priorities, but the

JLTV certainly is not a legacy program or platform. Yet over the last 4 years, the Army has often characterized the platform as a smaller MRAP (Mine Resistant Ambush Protected) or designed for the last war. The requirements that drove the creation of the JLTV do not support this claim, and the program was never designed to be the next MRAP for Iraq and Afghanistan. To their credit, the Marines have looked to the JLTV in their shift to supporting the Navy against peer adversaries, using the JLTV as the platform to support new shore to ship and long range fire capabilities. Are you familiar with these Marine Corps initiatives, and are you exploring any similar efforts at this point in time?

General MCCONVILLE. Yes, I am aware what the Marine Corps is doing. They have got some innovative ideas with the joint light tactical vehicle. What we are looking at is how we bring it into the force. And our numbers are significantly larger than what the Marine Corps is doing with the joint light tactical vehicle. That we have goals set up there. And really what happens, that is an enduring vehicle. That is not a legacy vehicle.

I just want to make sure people—because we have kind of had it characterized there is legacy, there is enduring, and there is the modernization efforts we have. So I see you really three categories as we discussed. The joint light tactical vehicle is an enduring vehicle. It is something that we need in the future. But it all comes down to, we are trying to give you all the best Army we can give you with the resources we have.

Secretary BALDWIN. Okay, I just would point out that JLTV continues to sort of act as a bill payer for other programs in the PB (President's Budget) 2022, resulting in about \$120 million unfunded requirement for the Army. So that is of concern. Let me just add, I think I have limited time left, that Senator Shelby asked earlier about the industrial base. And I believe, Secretary, you said that there was a report in the works from Materiel Command. I would like to get briefed on that report when it is available. And so I look forward to receiving that.

Secretary WORMUTH. Yes, Senator, it is in development now and we would be happy to discuss it when it is complete.

Secretary BALDWIN. Alright, thanks.

Senator TESTER. Thank you, Senator Baldwin. Senator Boozman.

Senator BOOZMAN. Thank you, Mr. Chairman, and thank you all for being here, and we really do appreciate your service to our country in so many different ways. As ranking on MILCON (Military Construction) of the Appropriations subcommittee, I know the importance of investing in quality of life projects such as barracks and family housing, as well as the impact of increased morale among the soldiers and their families, that that generates.

The strength of the Army is people, and certainly I know that you all agree that that should be right at the top of the list regarding priorities. Madam Secretary, given a tough budget cycle this year, how do we adequately address the funding for America's family housing and other quality of life issues that are so important?

Secretary WORMUTH. Senator Boozman, you are absolutely right that housing for our soldiers and our families is very, very important. And the Army has undertaken a number of initiatives in the last few years to try to make sure that we are providing the kinds

of housing for our families and soldiers that they need. You know, we have consolidated, for example, oversight of our privatized housing with Army Materiel Command and Installations Command. In terms of barracks in particular, we have a plan to invest about \$11.5 billion over 10 years to refurbish those barracks that are not as in good condition as some of the others.

And for example, I was just at Fort Hood a week or two ago and I saw some of our newer barracks, which I thought were quite satisfactory. But some of the barracks, frankly, that need to be modernized. And we are trying to do that as quickly as we can in the context of a flattening budget.

So there have been some difficult choices. I think there are some barracks facilities, for example, on General McConville's unfunded requirements list. But we do have a plan to try to move forward as quickly as possible to make sure that our soldiers have the housing they deserve.

Senator BOOZMAN. Very good. And we appreciate the list, General. You all are not bashful at all, and hopefully we can be of help in securing some additional funds along those lines. General, over the past 4 years, the Army has worked tirelessly to restore its readiness levels, which again is so important. It is fragile, if not adequately sustained. It can decline very quickly, as we have seen at different times in the past.

You mentioned the Army is implementing a foundation readiness model that will prioritize training at the company level. I guess the question is, do we have enough training capacity and resources on the active duty installations, or do we need to perhaps augment those installations with regional maneuver training centers to meet the intent of your foundational readiness model?

General MCCONVILLE. Well, Senator, I think we have the appropriate amount of training areas available. You know, what we are finding is this is a time for soldiers to train. And what we are trying to do is we are trying to focus—you know, if you only have so much time and so much resources, where do you spend those resources? I argue that you do that when you have new troops. You have new troops coming in units.

We bring in about 125,000 soldiers every single year. They have to get the basics. They have to get the training. They live in our organizations we call squads. And so you get the squad straight, you get the platoon straight, you get the company straight, and then we can take our battalions and brigades to our national training centers and our combat training centers and making sure they get the higher level type training. But if you don't get the foundation right, it is like building a house on a poor foundation.

It may look good in the top, but it is not good in the bottom. So that is the shift we are doing right now with the time and resources we have available.

Senator BOOZMAN. So with Afghanistan coming down, will the up tempo decrease or will it be maintained or—

General MCCONVILLE. Well, the amount of troops we have in Afghanistan is pretty small. I mean, we are talking, you know, 2,500 troops at the time. That is not a tremendous amount of troops when you take a look at where we were at. So a lot of people say, hey, is that going to change a whole lot of things? Not too much

for the Army. The 2,500, you know, brigade plus, you know, brigade minus is not a huge amount of troops.

Senator BOOZMAN. Very good. Thank you, Mr. Chairman.

Senator TESTER. Thank you, Senator Boozman. Senator Hoeven.

Senator HOEVEN. Thank you, Mr. Chairman. General, the Army National Guard is expected to deploy and fight alongside the active duty counterparts. Army currently trains on the MQ-1C Gray Eagle out of Fort Huachuca in Arizona. And I understand there you are having trouble getting enough training for the active duty members, just the volume. And so my understanding is, it is also difficult to get Guardsmen through that training. So are we training enough soldiers to operate the Gray Eagle in a timely fashion? My first question.

General McCONVILLE. I think so, Senator. I am sure we could train more, but at least the amount of aircraft we have, which is the trade off, is that those are going to use them—you know, the other thing with the Gray Eagle as we look to the future is that, and we see it contested air defense environment, we are going to have to take a look at what the utilization of that aircraft is.

As we take a look at our intelligence, surveillance, and reconnaissance aircraft that we have in the Force, many were designed for what we call irregular warfare, counterterrorism, counterinsurgency, where there is not a big air defense capability. So as we look in the future, we are going to take a hard look at what type of aircraft we have doing that mission.

Senator HOEVEN. Right. But the Army National Guard doesn't have its own MQ-1C aircraft or great—what are they called, Gray Eagle, excuse me, aircraft. They don't have it.

General McCONVILLE. That is right.

Senator HOEVEN. So it seems to me you have got bit of a bottleneck in terms of just getting your active duty forces through level and training guard. Then the Guards are supposed to support that mission, which they do tremendously well, and many others, but they don't have the Gray Eagle. So both in terms of training and then actually having units that have the Gray Eagle, how do we address that? Because you get both the training issue, but you also have an equipment issue when you want the Guard supporting your active duty forces and you have to have that equipment to train on.

General McCONVILLE. Well, that is what we are taking a look at, Senator, and we can take that for the record and come back to you, because I think—I saw, you know, as I look at where we are going in the future, we have got to come up with a—as the strategy has changed, we need to come up with the way we are going to do that.

Senator HOEVEN. Right. But you got that equipment across all your battle groups, active duty, but nothing in the Guard have you got training. So it is something we do need to help you address.

General McCONVILLE. Yes, we will take a look at it.

Senator HOEVEN. Thank you, General. Appreciate that. Madam Secretary, so obviously unmanned is a big issue, and then also countering unmanned aircraft, and then various forces deal with it, you know, in different ways. Obviously in the Army sphere, you have got the small, unmanned aircraft that you have to deal with for your troops. You operate the Joint Counter Small Unmanned

Aircraft System Office, which works with DOD (Department of Defense) to counter small unmanned UAS—we have one of the UAS sites—as a matter of fact, the first one established in North Dakota, the upper plains, the test site, or Great Plains test site I should say.

We work a lot with Customs and Border Protection, too, because we have got 900 miles of border responsibility on counter UAS. So how are you working that issue? And how can we be helpful to and continue to develop this counter small UAS arms issue?

Secretary WORMUTH. Thank you, Senator. Certainly we are, you know, the entire Department of Defense is concerned about the UAS problem. All you have to do is look at and see how drones were used in Nagorno Karabakh, for example, to see the potential threat that they pose both, to our forces overseas, but potentially here at home. We are the executive agent for the joint program office that is responsible for looking at counter small UAS capabilities, and the Office of the Secretary of Defense, which we work with closely, is actually responsible for liaising, if you will, with the interagency, for example, with Department of Homeland Security and the Customs and Border Patrol.

But we are working very closely with them, as well as with the FAA (Federal Aviation Administration) to look at how best to counter those kinds of threats. And I think the Center of Excellence can be very helpful to us as we continue to work that hard problem.

Senator HOEVEN. So who would we link in with at your office or Army, who would be the right person for us to connect with to really talk about how we can do some partnering or provide some assistance in this effort?

Secretary WORMUTH. Well, you could certainly talk to us in our joint program office. And I think in terms of looking towards other partners in the Federal family, you would probably want to talk to the OSD (Office of the Secretary of Defense) Homeland Defense Office.

Senator HOEVEN. I mean, we have a ton of partners. I mean, Guard, active duty, military forces, Customs and Border Protection, the State—I mean, we have got a ton, NASA (National Aeronautics and Space Administration). So I am just trying to understand the best point person to make sure we have clicked in with you in terms of what Army's needs are.

Secretary WORMUTH. Yes, I think our joint program office is the best belly button.

Senator HOEVEN. Thank you, Secretary. Thank you, Mr. Chairman.

Senator TESTER. Thank you, Senator Hoeven. Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman. Madam Secretary, General, welcome. Thank you, Madam Secretary. I haven't had an opportunity to personally congratulate you so we did it over the phone. But nice to have you here. I appreciated the conversation that we had last week regarding the Arctic. And as Chairman, I feel like I have arrived when the Senator from New Hampshire asks the first Arctic question for the hearing. It is like, hallelujah, we are here. We have been here for a long while. And the military

has recognized that, certainly the Army has recognized that. We have had an opportunity to talk about the Arctic strategy document that has been released. This is probably for both of you with regards to where—in the strategy, we note that the current unit distribution and alignment for Arctic operations may require configuration.

The Army will evaluate and adjust its necessary tactical and operational headquarters and unit relationships to best support. So where are we in this? What specifically and when specifically can we see this evaluation moving forward, where in the organization is this review being considered, and let me know where we are with this alignment for Arctic operations?

Secretary WORMUTH. Senator Murkowski, it is nice to see you as well, and thank you for those congratulations. We are having now issued the Army Arctic strategy. We are really in the process of looking at exactly its implications in terms of what kind of units we might want to see in the Arctic, exactly what kinds of equipment they would need to carry out those roles. And I have to be briefed, frankly, in more detail myself in terms of where we are precisely in our thinking. So why don't I ask if General McConville can speak in a little bit more detail to your timelines.

General McCONVILLE. Senator, as we lay out in the strategy, we have an administrative headquarters right now in Alaska. We see that becoming an operational headquarters. How that actually kind of works out, we have got other operational headquarters similar to maybe what is in Italy right now. It is not a division, but it is an operational headquarters, has the ability to respond and command and control troops. That is what General Eifler will set up and that is in the process of being done.

We are taking a look at how we equip really the Striker Brigade with the appropriate equipment, because the strikers are a great capability, but it is not really designed to operate 12 months a year up in Alaska. So we are taking a look at what that looks like and how we put that capability. We are also taking a look at—I was up in Natick, which is developing some really high speed cold weather gear. And that is the type of, gear we would like to get to that brigade so they can truly operate. They do a lot of great work up there, but how do we do that?

And then even looking at what type of people do we recruit for that brigade? You know, people that live there. You know that we can reach out to people that would be very—we really want to go and work in that environment. So the States and certainly Alaska, where we can write contracts. If you want—we will guarantee you are going to serve in this area. You can do those type things.

We are taking a look at a, potentially a multi-main task force. What that looks like, you know, is we have the capability for anti-access area denial capability, working that with NORTHCOM. So all these things are kind of coming together. And as we do the posture review, as we look at the resources available, that will all drive this as we move out over the next couple of years.

Senator MURKOWSKI. Well, it is really encouraging to hear you say this, because it is really all encompassing. It is looking at the assets, the equipment that we need to have. And I want a little bit of an update on where we are with this bridging the gap between

the SUSV (Small Unit Support Vehicle) and the CATV (Cold-weather All-Terrain Vehicle). We recognize that you have got to have the equipment, but if you don't have the gloves and the gear and everything that you need in an Arctic environment, it is pretty tough even to operate the equipment that we are talking about. So things like clothing are actually pretty important.

So, again, it was good to hear Senator Shaheen even acknowledge that. But I am really intrigued about the focus on what you are calling focused recruiting, looking at men and women who perhaps come from a part of the country where it is mountainous, it is cold. You have got, perhaps not Arctic conditions, but you are used to the cold.

I think we recognize that part of the quality of life initiatives that we deal with in a place like Alaska, it is really hard with certain individuals and their families when you have never, ever, ever had an exposure to the cold, to the dark, to snow, and then we plant you there and say, go off and do your job. And it is challenging. And I think we see this in some of the issues that we have been facing. We have had an opportunity to talk about this spike in soldier suicide.

That is something that we have got to get our arms around. But I really appreciate that from a strategy perspective, it really is a much more broad and encompassing. I have kind of dangled the question about the SUSV and the CATV. I am over time. But if you have a quick update on that?

General McCONVILLE. I know right now we are in the process of—and I have got to be careful—we will come back with an answer on that. I know we are going through the process right now, and I am kind of concerned if I talk about the process I might not be doing what I should be doing. We will come back with an answer. And I know we are working on that right now.

Senator MURKOWSKI. I appreciate that, General. Thank you, Mr. Chairman.

Senator TESTER. Thank you, Senator Murkowski. As the Arctic becomes more and more real, which is real right now, the points you bring up are certainly valid and sign me up. That is all I got to say. I don't think I would meet the qualifications you need in the Army right now, but what the hell.

ADDITIONAL COMMITTEE QUESTIONS

We are going to close this out right now, and I really appreciate your testimony here today. Senators may submit additional written questions. And of course, we would ask you to answer those in a reasonable period of time.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. CHRISTINE E. WORMUTH

QUESTIONS SUBMITTED BY SENATOR RICHARD LEAHY

Question. Given the administration's priority of taking care of our people, and the important role that unit cohesion plays in improving readiness, it is crucial that the Army take a fresh look at policies and practices that may not support all

servicemembers. To that end, please outline what changes, if any, the Army has made, is making, plans to make, or is considering in order to:

Improve diversity in leadership positions;

Answer. In 2020, the Secretary of the Army (SA) and the Chief of Staff of the Army (CSA) announced an effort entitled “Project Inclusion.” Project Inclusion operationalizes the Army People Strategy: Diversity, Equity and Inclusion by organizing and leveraging resources across the Army to rapidly advance Assistant Secretary of the Army for Manpower and Reserve Affairs ASA(M&RA) prioritized efforts. The ASA(M&RA) signed the Army People Strategy: Diversity, Equity and Inclusion on September 1, 2020. The Army People Strategy fulfills the fiscal year 2020 National Defense Authorization Act, Section 529 mandate for the military services to develop a diversity and inclusion strategic plan by December 20, 2020. The five main goals of the plan include Leader Commitment, Talent Management, Organizational Structure, Training and Education, and Equitable and Inclusive Environment.

As this year continues, within the talent management initiatives, the Army Talent Management Task Force (TMTF) has established programs seeking to address diversity, equity, and inclusion (DEI). Programs like the Command Assessment Program (CAP) provide the Army ways to improve opportunities for under-represented populations. The CAP incorporates active measures to reduce opportunities for bias by conducting double-blind interviews, conducting anti-bias training with voting panels, and anonymizing files presented to voting panels.

In addition, the Career Mapping and Succession Planning tool is currently under design. This tool will interface with the Army Talent Alignment Process (marketplace) and Soldier Talent Profile to recommend future assignments using individual knowledge, skills, and behaviors to indicate where individuals should take military and professional courses, seek training, pursue a new assignment, or take other career actions in order to advise individuals on achieving their career goals. When reversed, the Career Mapping algorithm is used for Succession Planning, to look at the population identified as best fit for these positions. The identification of these talent pools early on can be used to adjust policies and remove obstacles to a talented and diverse population being considered for key leadership positions at all levels.

Question. Improve diversity retention at all levels;

Answer. In response to the 21 May 2020 SA/CSA Dual Signed memo addressing diversity in the Army, the ASA(M&RA) directed an Operational Planning Team (OPT) to develop an Implementation Plan to Expand Diverse Talent in the Army Officer Corps which will guide the Army to new accomplishments which strengthen diversity and inclusion in the force. The operational planning team developed 20 initiatives to meet four objectives addressing how the Army will acquire, develop, employ, and retain diversity. It marks an acceleration of new people plans, programs, and policies aimed at expanding diversity and inclusion in the Officer Corps, the Warrant Officer Corps, and the Enlisted Corps. The Implementation Plan to Expand Diverse Talent in the Army Officer Corps was published on January 7, 2021. ASA(M&RA) has also developed OPTs to develop plans for our Enlisted, Warrant, and Civilian cohorts, and the Civilian Implementation Plan was published in January. The Implementation Plans for Warrant Officers and Enlisted Soldiers are in development.

As a part of the Implementation Plan for the Officer Corps, the Army has implemented several initiatives as a part of its efforts to increase diversity across the ranks. Initiatives include the Urban Access Program (Aug 2020); a Combat Arms Outreach Pilot Program (Mar 2021); Talent Based Branching at USMA and USACC (2019 & 2020); Incorporated Diversity and Inclusion education and training into PME (Apr 2021); started conducting the Department of the Army Career Engagement Survey (May 2020); Army ROTC Senior Officer Mentor Program (June 2021); Incentivize Select Sources of Commission Positions (June 2021); and Incorporating Mentorship into the Army PME System (fiscal year 2021). Some of these initiatives will also positively impact the recruitment and retention of Army Civilians, Warrant Officers, and Enlisted Soldiers.

Strengthening Cadet mentoring programs is also an Army focus within recruiting and retention. The goal of the cadet mentorship programs is to increase officer accessions and to help cadets make informed decisions about their future Army careers. Staffing a diverse mix of Army Officers and Non-Commissioned Officers to serve as faculty and mentors at United States Military Academy (USMA) and Reserve Officer Training Corps (ROTC) locations not only increases the visibility of Army professionals at our sources of commission, but can influence and enhance the cadets’ understanding of various branches. Going forward, the Army Human Resource Command (HRC) continues to work with ASA(M&RA), DCS G-1, and the

sources of commissions to assign best fit officers to positively support the strategic outcomes of the Army People Strategy.

Question. Improve trainings, including sexual assault prevention, with input from women, LGBTQ servicemembers, BIPOC servicemembers, and sexual assault survivors.

Answer. The Army SHARP Academy, at Fort Leavenworth, Kansas, the proponent for SHARP training across the Army, is aware of DoD's research efforts to identify evidence-based practices to address the need for culturally-competent care for men, women, LGBTQ service members, BIPOC service members, and sexual assault survivors. Once those best practices have been identified/codified, the SHARP Academy will develop curricula needed to enhance training for the Army's Sexual Assault Response Coordinators (SARC), Victim Advocates (VA), and the total force. Currently, the SHARP Academy develops curricula with input from women and BIPOC service members. The curricula instruct Army advocates on how to care for sexual assault victims and sexual harassment complainants with dignity, respect and compassion regardless of their race, gender, orientation, religion or any other identifying characteristics. The SHARP Academy continues to train SHARP professionals to respond to all victims and complainants without judgment or segregated advocacy actions. As DoD releases future guidance and information pertaining to culturally-competent care, the Army will rapidly assimilate the information into SARC/VA training courses and will add additional content to the Army-wide training support package and SHARP Annual Refresher Training.

Question. Increase availability and accessibility of mental health support services for servicemembers and their families, including services tailored specifically toward minority servicemembers.

Answer. The U.S. Army supports the Defense Health Agency's Behavioral Health Diversity Working Group, which was recently chartered to support advancements in mental health services for women, LGBTQ, and ethnic minorities. The working group will offer clinical guidance to enhance the care provided for minorities. Additionally, since the onset of the COVID epidemic, virtual mental health has expanded to provide services within the comfort of patients' homes.

This is particularly important for low-income families, many of whom are minorities. By eliminating the need to travel to an in-person appointment, beneficiaries have fewer barriers to seeking care.

Question. Improve outreach to and support for minority servicemembers facing discrimination from within their units;

Answer. Education, awareness, and bystander intervention are at the heart of the Army's efforts to combat racism. The Army is working to improve outreach and support to minority servicemembers facing discrimination. The Army has developed a "Your Voice Matters" campaign, which is a listening session concept designed to develop atmospherics and determine any local and/or Army-wide diversity and inclusion policy requirements; demonstrate care and commitment to the well-being of our military and civilian personnel; and provide an opportunity for personnel to engage with concerns or questions about issues that impact their personal and professional lives. It has also assisted local command teams and the Army Headquarters to better understand diversity, equity, and inclusion issues currently affecting the Army and society writ large. As of July 13 2021, the Army has conducted 134 sessions with multiple servicemembers at 19 different locations. Further, the Army is updating Army Regulation (AR) 600-20, "Army Command Policy," to improve the identification and resolution of discrimination issues through education, awareness, and bystander intervention efforts. The Army has also updated Equal Opportunity training to address racial issues and other related issues at all Professional Military Education (PME) levels, from junior Soldiers to General Officers.

Question. Improve medical care for transgender servicemembers, women, and Black parents, particularly for transition care, pregnancy, and post-partum care.

Answer. Army Medicine proudly serves all servicemembers and their beneficiaries, regardless of sexual orientation, race, or ethnicity. Since Executive Order 14004 ("Enabling All Qualified Americans to Serve Their Country in Uniform") was signed in January 2021, the Army's Office of The Surgeon General (OTSG) has been coordinating with the Department of Defense (DoD) and the Defense Health Agency to improve care for our transgender Soldiers and our Soldiers with gender dysphoria, including modifying those policies that have a negative impact on these Soldiers. DoD recently updated two DoD policies to ensure that all Soldiers and applicants can serve freely in their self-identified gender.

Further, as safety is a priority when caring for all Soldiers through pregnancy and post-partum care, per established clinical practice guidelines, ensuring specialty referral needs are met is a part of prenatal and post-partum care. The standard of

care is applied to every servicemember and is tailored to the individual based on risk factors, including ethnicity.

QUESTIONS SUBMITTED BY SENATOR LISA MURKOWSKI

FUTURE OF WEAPONS

Question. Secretary Wormuth, the Chairman of the Joint Chiefs testified to our House counterparts in response to a specific question regarding maintaining a technological advantage that we are facing a rapid developmental convergence of an assortment of technologies including hypersonic weapons. He also said that “if we do not put a lot of money towards developing [hypersonic weapons] to a level of capability to deploy the joint force, we will be at a significant disadvantage to those countries that do develop them.”

Where does the Army see the biggest infrastructure or support challenges in developing our race to develop these weapons?

Answer. The biggest infrastructure or support challenges for hypersonic weapon development fall into two general categories: (1) the immature commercial industrial base; and (2) the Department of Defense (DoD) test infrastructure.

First, as part of the joint Army/Navy program, one of the Army’s assigned missions is to transition the Common Hypersonic Glide Body (CHGB) technology from Sandia National Labs (SNL) to commercial industry. The Army is executing this responsibility through a competitive industrial base selection using a “leader-follower” method with industry embedded with the government team at SNL. The industry team (the “follower”) is learning to build the CHGBs from the scientists at SNL (the “leader”). In parallel to the ongoing knowledge transfer activities, industry is building the necessary commercial production capability to support the CHGB demand signal. Upon completion of the commercial production facility, SNL will become the “follower” at the commercial facility with the commercial partner taking the role of the “leader.” The first CHGB produced wholly by industry will be delivered in fiscal year 2022.

Second, the current test infrastructure for hypersonics is challenged by the limited number of locations and each location’s available capacity. The hypersonic test need is a sub-set of the DoD test infrastructure, where all Services, as well as allied and partner nations, use the same assets across numerous programs, both hypersonic and conventional in nature. As the pace of hypersonic and long range missile testing accelerates, the test infrastructure must be expanded to meet projected demands.

Question. What is the Army’s current capacity to test hypersonic weapons and where are we doing so?

Answer. The current capacity for testing hypersonic weapons is challenged by the combination of multiple DoD programs, both hypersonic and conventional, that are concurrently in test phases, as well as supporting allied and partner nations testing. The Army uses high demand/low quantity testing assets for hypersonic weapons, such as arc jet heaters, wind tunnels, static ground testing facilities, and dynamic ground test infrastructure. The facilities, which are limited in availability by location and capacity, are required to validate designs, complete component testing, and conduct end-to-end weapon system testing. These limitations create a challenge of balancing the demands of not only the Army’s hypersonic needs, but also those of multiple Services. As the Army fields additional batteries, and new hypersonic technologies are developed across the Services, the facilities will continue to have issues with meeting the increased demand.

Due to the long corridors required for flight tests, the Army and Navy use locations such as the Reagan Test Site-Kwajalein, Pacific Missile Range Facility, Hawaii, Pacific Spaceport Complex, Alaska, and the Cape Canaveral Spaceport Complex, Florida.

Question. How does this budget request support the Army’s ability to develop and test hypersonic weapons?

Answer. The Army’s fiscal year 2022 budget request for the Army’s Long Range Hypersonic Weapon (LRHW) supports fabrication and assembly of major components of the system, including the missile stack, missile booster, and Common Hypersonic Glide Body (CHGB). The fiscal year 2022 request also supports industrial base activities for the commercial production line building the CHGB and completion of the first commercially produced CHGBs. The fiscal year 2022 funds support continued software and hardware testing and systems integration activities for the Transporter Erector Launchers (TEL) and Battery Operations Center (BOC).

The TELs and BOC will be fielded to the unit of action in the first quarter of fiscal year 2022 to begin Soldier training with the equipment.

Following the fielding, software development and hardware testing will continue to support upcoming flight tests and validate the mission planning concepts of operation.

The Army's fiscal year 2022 hypersonics budget request supports two major tests that will validate the configuration of the LRHW system. The Army will field the LRHW in fiscal year 2023, and Soldiers from the fielding unit will be deployed to support both of these tests. The Army will conduct these tests in conjunction with the Navy.

The Navy's hypersonic budget also supports the Army's LRHW effort, as the Army leverages the Navy's development efforts in their Conventional Prompt Strike Program. The Army and Navy are partnered to execute hypersonics through use of a CHGB, common missile design, common mission planning system, and joint test opportunities.

QUESTIONS SUBMITTED BY SENATOR LINDSEY GRAHAM

PALADIN INTEGRATED MANAGEMENT (PIM)

Question. Secretary Wormuth, The Army identified an Unfunded Requirement of \$149.5 million for the Paladin Integrated Management (PIM) program that when coupled with the fiscal year 2022 President's Budget Request, would procure up to 36 sets of equipment. However, this is still only a little more than half of the full rate production volume specified in the DoD approved acquisition program baseline of 60 sets per year. This lower volume will likely cause significant unit cost growth and workforce downsizing. Given this, can you tell me what the impact will be on fielding PIM to soldiers and on the industrial base by moving away from the current volumes of 44 to 48 PIM sets per year? Additionally, what analysis did the Army use to determine the Unfunded Requirement funding amount for this program?

Answer. The impact of reducing to 25 PIM sets per year is that the Army will procure one less Brigade Combat Team (BCT) set of PIM in fiscal year 2022, delaying the fielding of PIM to one BCT when the fiscal year 2022 procurements are delivered in fiscal year 2025. There are no anticipated impacts to the industrial base given that 25 sets is above the Minimum Sustainment Rate for production.

As for the Army's Unfunded PIM Requirement analysis, the Army forecasted in its fiscal year 2021 budget request the procurement of 43 sets in fiscal year 2022. However, based on the reduced Army topline and competing Army modernization priorities, the Army reallocated PIM funding to higher priority modernization efforts. The Army's Unfunded Requirement amount of \$149.5 million would restore the funding to its original fiscal year 2022 funding position and procure 43 sets.

QUESTIONS SUBMITTED TO GENERAL JAMES C. MCCONVILLE

QUESTIONS SUBMITTED BY SENATOR RICHARD LEAHY

Question. Over the last year the Army National Guard has demonstrated quite visibly that they have a connection with nearly every community in America. They are friends and neighbors who deliver food during the pandemic, or guarantee the right to safe and peaceful protest, or are there with drinkable water when the flood waters wipe out every other road to a town. The key organizing point they use for all these missions and more are Readiness Centers, which serve as the physical center point—the infrastructure, if you will—for everything they do for their communities.

After two decades of war, the list of Army construction and facility needs is extremely long, and there was a hearing last week to talk extensively about MilCon needs. But I wanted to hear from you, General, about what that construction means operationally.

What is the significance to a Guard unit of an up-to-standards Readiness Center—meaning everything from meeting safety regulations to having bathrooms for women, which too many of our readiness centers do not—for performing its various missions?

Answer. An “up to standards” Readiness Center is the result of an approved project that has been completed according to approved plans, specifications, criteria, and standards. These Readiness Centers allow Army National Guard units to store all equipment and materiel in one location for timely issuance to Soldiers and expedient mission readiness. This prevents the loss of valuable time spent retrieving

units' equipment from geographically dispersed sites and facilities. "Up to standards" Readiness Centers are also designed to include facilities, such as locker rooms and restrooms, for all Soldiers. The Army fully acknowledges that substandard facilities negatively affect Soldier quality of life and thus, recruiting and retention. The Army is aiming for Readiness Centers that ensure all Soldiers are provided the space to accomplish all mission functions for a timely and efficient Army response. This includes infrastructure that supports all communication and data systems for training, readiness, and response needs. In summary, Readiness Centers that are "up to standard" significantly increase the readiness of the National Guard.

Question. Given the administration's priority of taking care of our people, and the important role that unit cohesion plays in improving readiness, it's crucial that the Army take a fresh look at policies and practices that may not support all servicemembers. To that end, please outline what changes, if any, the Army has made, is making, plans to make, or is considering in order to:

Improve diversity in leadership positions;

Answer. In 2020, the Secretary of the Army (SA) and the Chief of Staff of the Army (CSA) announced an effort entitled "Project Inclusion." Project Inclusion operationalizes the Army People Strategy: Diversity, Equity and Inclusion by organizing and leveraging resources across the Army to rapidly advance Assistant Secretary of the Army for Manpower and Reserve Affairs ASA(M&RA) prioritized efforts. The ASA(M&RA) signed the Army People Strategy: Diversity, Equity and Inclusion on September 1, 2020. The Army People Strategy fulfills the fiscal year 2020 National Defense Authorization Act, Section 529 mandate for the military services to develop a diversity and inclusion strategic plan by December 20, 2020. The five main goals of the plan include Leader Commitment, Talent Management, Organizational Structure, Training and Education, and Equitable and Inclusive Environment.

As this year continues, within the talent management initiatives, the Army Talent Management Task Force (TMTF) has established programs seeking to address diversity, equity, and inclusion (DEI). Programs like the Command Assessment Program (CAP) provide the Army ways to improve opportunities for under-represented populations. The CAP incorporates active measures to reduce opportunities for bias by conducting double-blind interviews, conducting anti-bias training with voting panels, and anonymizing files presented to voting panels.

In addition, the Career Mapping and Succession Planning tool is currently under design. This tool will interface with the Army Talent Alignment Process (marketplace) and Soldier Talent Profile to recommend future assignments using individual knowledge, skills, and behaviors to indicate where individuals should take military and professional courses, seek training, pursue a new assignment, or take other career actions in order to advise individuals on achieving their career goals. When reversed, the Career Mapping algorithm is used for Succession Planning, to look at the population identified as best fit for these positions. The identification of these talent pools early on can be used to adjust policies and remove obstacles to a talented and diverse population being considered for key leadership positions at all levels.

Question. Improve diversity retention at all levels;

Answer. In response to the 21 May 2020 SA/CSA Dual Signed memo addressing diversity in the Army, the ASA(M&RA) directed an Operational Planning Team (OPT) to develop an Implementation Plan to Expand Diverse Talent in the Army Officer Corps which will guide the Army to new accomplishments which strengthen diversity and inclusion in the force. The operational planning team developed 20 initiatives to meet four objectives addressing how the Army will acquire, develop, employ, and retain diversity. It marks an acceleration of new people plans, programs, and policies aimed at expanding diversity and inclusion in our Officer Corps, our Warrant Officer Corps, and our Enlisted Corps. The Implementation Plan to Expand Diverse Talent in the Army Officer Corps was published on January 7, 2021. ASA(M&RA) has also developed OPTs to develop plans for our Enlisted, Warrant, and Civilian cohorts, and the Civilian Implementation Plan was published in January. The Implementation Plans for Warrant Officers and Enlisted Soldiers are in development.

As a part of the Implementation Plan for the Officer Corps, the Army has implemented several initiatives as a part of its efforts to increase diversity across the ranks. Initiatives include the Urban Access Program (Aug 2020); a Combat Arms Outreach Pilot Program (Mar 2021); Talent Based Branching at USMA and USACC (2019 & 2020); Incorporated Diversity and Inclusion education and training into PME (Apr 2021); started conducting the Department of the Army Career Engagement Survey (May 2020); Army ROTC Senior Officer Mentor Program (June 2021); Incentivize Select Sources of Commission Positions (June 2021); and Incorporating

Mentorship into the Army PME System (fiscal year 2021). Some of these initiatives will also positively impact the recruitment and retention of Army Civilians, Warrant Officers, and Enlisted Soldiers.

Strengthening Cadet mentoring programs is also an Army focus within recruiting and retention. The goal of the cadet mentorship programs is to increase officer accessions and to help cadets make informed decisions about their future Army careers. Staffing a diverse mix of Army Officers and Non-Commissioned Officers to serve as faculty and mentors at United States Military Academy (USMA) and Reserve Officer Training Corps (ROTC) locations not only increases the visibility of Army professionals at our sources of commission, but can influence and enhance the cadets' understanding of various branches. Going forward, the Army Human Resource Command (HRC) continues to work with ASA(M&RA), DCS G-1, and the sources of commissions to assign best fit officers to positively support the strategic outcomes of the Army People Strategy.

Question. Improve trainings, including sexual assault prevention, with input from women, LGBTQ servicemembers, BIPOC servicemembers, and sexual assault survivors;

Answer. The Army SHARP Academy, at Fort Leavenworth, Kansas, the proponent for SHARP training across the Army, is aware of DoD's research efforts to identify evidence-based practices to address the need for culturally-competent care for men, women, LGBTQ service members, BIPOC service members, and sexual assault survivors. Once those best practices have been identified/codified, the SHARP Academy will develop curricula needed to enhance training for the Army's Sexual Assault Response Coordinators (SARC), Victim Advocates (VA), and the total force. Currently, the SHARP Academy develops curricula with input from women and BIPOC service members. The curricula instruct Army advocates on how to care for sexual assault victims and sexual harassment complainants with dignity, respect and compassion regardless of their race, gender, orientation, religion or any other identifying characteristics. The SHARP Academy continues to train SHARP professionals to respond to all victims and complainants without judgment or segregated advocacy actions. As DoD releases future guidance and information pertaining to culturally-competent care, the Army will rapidly assimilate the information into SARC/VA training courses and will add additional content to the Army-wide training support package and SHARP Annual Refresher Training.

Question. Increase availability and accessibility of mental health support services for servicemembers and their families, including services tailored specifically toward minority servicemembers.

Answer. The U.S. Army supports the Defense Health Agency's Behavioral Health Diversity Working Group, which was recently chartered to support advancements in mental health services for women, LGBTQ, and ethnic minorities. The working group will offer clinical guidance to enhance the care provided for minorities. Additionally, since the onset of the COVID epidemic, virtual mental health has expanded to provide services within the comfort of patients' homes.

This is particularly important for low-income families, many of whom are minorities. By eliminating the need to travel to an in-person appointment, beneficiaries have fewer barriers to seeking care.

Question. Improve outreach to and support for minority servicemembers facing discrimination from within their units.

Answer. Education, awareness, and bystander intervention are at the heart of the Army's efforts to combat racism. The Army is working to improve outreach and support to minority servicemembers facing discrimination. The Army has developed a "Your Voice Matters" campaign, which is a listening session concept designed to develop atmospherics and determine any local and/or Army-wide diversity and inclusion policy requirements; demonstrate care and commitment to the well-being of our military and civilian personnel; and provide an opportunity for personnel to engage with concerns or questions about issues that impact their personal and professional lives. It has also assisted local command teams and the Army Headquarters to better understand diversity, equity, and inclusion issues currently affecting the Army and society writ large. As of July 13, 2021, the Army has conducted 134 sessions with multiple servicemembers at 19 different locations. Further, the Army is updating Army Regulation (AR) 600-20, "Army Command Policy," to improve the identification and resolution of discrimination issues through education, awareness, and bystander intervention efforts. The Army has also updated Equal Opportunity training to address racial issues and other related issues at all Professional Military Education (PME) levels, from junior Soldiers to General Officers.

Question. Improve medical care for transgender servicemembers, women, and Black parents, particularly for transition care, pregnancy, and post-partum care;

Answer. Army Medicine proudly serves all servicemembers and their beneficiaries, regardless of sexual orientation, race, or ethnicity. Since Executive Order 14004 (“Enabling All Qualified Americans to Serve Their Country in Uniform”) was signed in January 2021, the Army’s Office of The Surgeon General (OTSG) has been coordinating with the Department of Defense (DoD) and the Defense Health Agency to improve care for our transgender Soldiers and our Soldiers with gender dysphoria, including modifying those policies that have a negative impact on these Soldiers. DoD recently updated two DoD policies to ensure that all Soldiers and applicants can serve freely in their self-identified gender.

Further, as safety is a priority when caring for all Soldiers through pregnancy and post-partum care, per established clinical practice guidelines, ensuring specialty referral needs are met is a part of prenatal and post-partum care. The standard of care is applied to every servicemember and is tailored to the individual based on risk factors, including ethnicity.

QUESTIONS SUBMITTED BY SENATOR PATTY MURRAY

Question. Joint Base Lewis McChord in my home state of Washington has received recent media attention highlighting the problem of food insecurity experienced by local military families. Research shows that as many as one in five military families in Washington state are experiencing food insecurity. And a recent Army study associates food insecurity with anxiety, depression, and suicidal thoughts. How is the Army engaging on the issue of food insecurity and helping those Army families in need?

Answer. The Army currently takes a multi-pronged approach to food insecurity among Soldiers and their Families. When the Army discovers that a Soldier or their immediate family is facing food insecurity, the Army initially connects the Soldier and family members to Army Emergency Relief and other community-based resources to address short-term financial emergencies. Next, the Army looks to provide individualized services to improve the Soldiers and Family’s long-term financial outlook. These services include Financial Readiness Program (FRP) counseling for Soldiers and Families, which helps families develop budgets, manage credit/debt, and identify how to best use their financial resources. The Army also provides education to all Soldiers through a standardized mandatory financial readiness curriculum that includes familiarity with assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP) or the Family Subsistence Supplemental Allowance (FSSA). The Army also offers the Employment Readiness Program (ERP) to aid spouses in seeking employment to further improve the family’s total financial outlook. From a forward-looking organizational perspective, the Army continues to work with DoD on the on-going broad-based study of food insecurity among members of the Armed Forces and their dependents. This study includes an assessment of the feasibility of a new basic needs allowance, an assessment of the barriers (if any) to qualification for or access to adequate food assistance programs of any type, and an assessment of the participation of servicemembers in the SNAP. This study will better inform the path forward for the Army on this important issue. Congress is required OSD to submit a report based on this study by March 31, 2022.

Question. Another issue that demands Army attention is the lack of affordable housing at Yakima Training Center in central Washington. There is currently no military housing for families or unaccompanied personnel at Yakima, and off base, the vacancy rate for apartments and homes for sale is below 1 percent. The Army’s 2020 Housing Market Analysis for Yakima also showed there’s a housing shortfall. Assigned servicemembers at the Yakima Training Center clearly need more affordable housing. What is the Army doing to fix this?

Answer. The Army is exploring several options to address the lack of affordable housing at/near Yakima Training Center. The Army hired a housing manager at this location to assist Servicemembers and their families with their housing needs. The new housing manager is working to establish a Rental Partnership Program (RPP) with local rental property companies to provide Servicemembers with improved access to affordable housing. Additionally, the Army—in collaboration with local and state leaders—continues to evaluate other housing solutions within the Yakima area.

QUESTIONS SUBMITTED BY SENATOR JEANNE SHAHEEN

GRENADIER SIGHTING SYSTEM

Question. The Grenadier Sighting System is a critical piece of technology that provides soldiers with invaluable day and night-time fighting capabilities for the M320 Grenade Launcher. I understand that the Army has procured 73,000 M320s, but the system remains without a nighttime fighting capability. Can you please provide the acquisition plan for the Army's procurement of the Grenadier Sighting System for Close Combat Forces and the rest of the Army?

Answer. The current Army Acquisition Objective for the Grenadier Sighting System (GSS) is 73,024 systems. The GSS is currently planned to serve as a 1-to-1 component to the M320 Grenade Launcher. The Army has a Firm Fixed Price Contract with Wilcox Industries to procure the GSS, and 19,427 of GSS have been procured to date.

QUESTIONS SUBMITTED BY SENATOR MITCH McCONNELL

EUROPEAN DETERRENCE INITIATIVE

Question. V Corps, including its rotational force in Poland, provides the United States and our allies with key capabilities to promote interoperability, counter malign influence, and deter aggression in Europe. Will proposed budget cuts to the European Deterrence Initiative diminish Army's capacity to maintain and strengthen these important capabilities?

Answer. The Army will continue to maintain and strengthen its deterrence posture in Europe within current resourcing. V Corps serves as the higher headquarters command for assigned and rotational land forces in Europe. V Corps' activities are largely funded through the EDI. This includes exercises, a forward rotational presence, key infrastructure investments, and prepositioned equipment.

FUTURE VERTICAL LIFT (FVL)

Question. Does Army's budget request for fiscal year 2022 include the necessary resources to field FVL platforms by 2028?

Answer. The current fielding plan for both the Future Attack Reconnaissance Aircraft (FARA) and the Future Long-Range Assault Aircraft (FLRAA) will enable the "first units equipped" in fiscal year 2030. The Army remains committed to long-term affordability of both FARA and FLRAA. This commitment includes goals and caps on Average Procurement Unit Cost (APUC) and Operations and Sustainment (O&S) costs, which serve as the long-term measures of affordability.

At this time, the Army supports continued funding for FVL programs based on the transformational capability they will bring to the joint force in multiple theaters.

Question. What role will the 101st Airborne Division and 160th Special Operations Aviation Regiment have in flying or testing new vertical lift platforms?

Answer. Soldiers from the 101st Airborne Division and the 160th Special Operations Aviation Regiment are, and will continue to be, part of Soldier-centered design efforts to fly and test new vertical lift platforms. The Army employs a Soldier-centered design in the following ways: (1) the identification and validation of operational gaps, (2) the development of requirements, (3) the development and testing of new operational concepts and doctrine, (4) the development, evaluation, and modification of prototypes, and (5) the operational test and evaluation of potential future capabilities. The Army incorporates Soldier feedback as well as lessons learned. Critical and continuous feedback from Soldiers—many with significant recent combat experience—plays a critical role in our efforts to "drive and fly before we buy."

Soldiers from across the force, both conventional and special operations, will continue to participate in Soldier touch points from the requirements definition phase to the fielding of new capabilities phase in order to ensure combat overmatch against our adversaries.

Question. What military construction and other facility improvements are needed to accommodate FVL platforms at Fort Campbell? If further review is needed to determine these improvements, when do you expect to conclude those reviews?

Answer. The Army is assessing 19 active and reserve component aviation installations that are under consideration for the stationing of Future Vertical Lift (FVL) aircraft, including Fort Campbell, Kentucky. This assessment includes evaluating all requirements necessary to train, maintain, and deploy these future aviation formations based on the projected FVL capabilities. Not only is the Army evaluating facility requirements, but the assessment team is also reviewing 17 major areas, in-

cluding hangar, airfield, airspace, and training area capacity; live fire range capabilities; and support facilities. The facilities review alone includes more than 40 sub-areas to ensure that the existing facilities can support the maintenance and support requirements for the FVL aircraft. We expect to complete the compilation of the information by the end of fiscal year 2021 and the assessment will identify construction and other improvement requirements for not only Fort Campbell, but for all installations, in order to inform the fiscal year 24–28 Program Objective Memorandum (POM) cycle submission.

BLUE GRASS ARMY DEPOT (BGAD)

Question. Please provide an update on Army’s review of potentially reusing certain equipment for BGAD’s conventional operations that have supported its chemical weapon mission.

Answer. The Army continues to review the potential for reusing certain equipment from the Blue Grass Army Depot’s (BGAD) chemical weapon demilitarization operation for BGAD’s conventional weapons operations. This review will continue until the chemical weapon operation is completed.

Question. It is my understanding that some equipment currently supporting BGAD’s chemical demilitarization operations may be environmentally advantageous for the installation’s conventional mission. How will Army decide which equipment to transition from BGAD’s chemical mission to its conventional operations?

Answer. DoD and Army regulations, legal requirements, safety considerations, and historical practices will be used to evaluate the potential of equipment for reuse. The Assembled Chemical Weapons Alternatives (ACWA) Program can only transfer property that is “safe to use” for additional duties. There is an established process for property disposition. The type of property determines the process. For example, buildings and equipment where chemical munitions were present but where there was no contamination (e.g., container handling building) fall into the SOME REUSE category. Buildings and equipment not contaminated and without potential to be contaminated (e.g., maintenance building) fall into the MOST OFTEN REUSE category. As part of the Army’s Organic Industrial Base modernization strategy, over the next 15 years, the Army will ensure Blue Grass Army Depot is capable of sustaining readiness, is capable of supporting modernization efforts, and is postured to meet future wartime requirements.

Question. What measures is Army taking to offset potential negative economic impacts to the local community that may result from the conclusion of BGAD’s chemical demilitarization mission?

Answer. In order to assess the impact to the local community, the Economic Impact Working Group uses a collaborative and transparent effort among local governments, Kentucky’s congressional delegation, chambers of commerce, industry, the Department of Defense (DoD), the Department of the Army, the Kentucky Cabinet for Economic Development, the Bluegrass Area Development District, and the Bechtel Corporation (Blue Grass Chemical Agent-Destruction Pilot Plant’s (BGCAPP) primary contractor). As mission completion approaches, the future economic impacts resulting from the conclusion of BGAD’s chemical demilitarization mission are being closely scrutinized.

To help protect the community against those impacts Army is proactively coordinating with DoD’s Office of Local Defense Community Cooperation (OLDCC). The Blue Grass Area Development District requested planning assistance in December 2020 and the OLDCC is considering a broad economic adjustment planning effort to stabilize the local economy through the conclusion of BGAD’s chemical demilitarization mission.

FORT CAMPBELL

Question. Fort Campbell currently has a significant deficit of tactical equipment maintenance facilities (motor pools), and 12 of the existing facilities were built during the Korean War. What is Army’s plan to construct additional motor pools that are large enough and properly equipped to perform maintenance on modern vehicles at Fort Campbell?

Answer. The current ten-year Army Facility Investment Plan (FIP), led by U.S. Army Materiel Command, includes building two tactical equipment maintenance facilities at Fort Campbell to address existing facility deficits. Additionally, two emerging tactical equipment maintenance requirements have also been identified and will compete for Military Construction funding between fiscal year 2023 and fiscal year 2031.

Question. What is Army’s plan to renovate Fort Campbell’s outdated 1st BCT VOLAR barracks, which were built in the 1970s?

Answer. The current ten-year Army Facility Investment Plan (FIP) includes Restoration and Modernization (R&M) projects to renovate all 13 1st Brigade Combat Team (BCT) Volunteer Army (VOLAR) barracks. There are four unaccompanied housing R&M projects programmed in fiscal year 2021 and fiscal year 2022. The funding for the two fiscal year 2021 projects was released on Feb. 4, 2021, and the two fiscal year 2022 projects, based on our fiscal year 2022 budget request, are expected to be released and awarded no earlier than the second quarter of fiscal year 2022. The remaining nine 1st BCT VOLAR barracks are slated to be addressed between fiscal year 2023 and fiscal year 2031.

ABILITYONE PROGRAM

Question. It was recently announced that Army plans to use intergovernmental support agreements (IGSAs) instead of the existing AbilityOne contracts for custodial services at Fort Campbell and Fort Knox. Does Army policy allow for the use of IGSAs instead of AbilityOne contracts where cost-savings can be achieved? What is Army's plan for future participation in the AbilityOne Program, which employs people who are blind or have significant disabilities to provide custodial, grounds keeping, food, and other services on Army installations?

Answer. The Army has not made a decision to enter into an IGSAs for custodial services at either Fort Campbell or Fort Knox. The IGSA authority (10 U.S.C. 2679(a)(1)) allows the Department of Defense to enter into an IGSA with a state or local government that can deliver installation support services more efficiently and at a lower cost. Neither the law, nor Department of Defense or Army policy, prohibit the use of an IGSA in lieu of an AbilityOne contract when the Secretary determines that doing so is in the best interests of the Army by enhancing mission effectiveness or creating efficiencies or economies of scale, including by reducing costs. The U.S. Army Installation Management Command (IMCOM) continues to be one of the largest supporters of the AbilityOne Program in the United States Army and Department of Defense. IMCOM's contract portfolio contains 71 contracts set aside for AbilityOne with a total contract value of \$1.7 billion. According to SourceAmerica data, these IMCOM contracts employ 2,318 Disabled Full Time Equivalent employees. Each proposed IGSA receives a thorough review for cost savings and overall benefit to the government. For proposed IGSAs that would displace an incumbent AbilityOne contractor, IMCOM also reviews the IGSA proposals to determine if there is a firm commitment from the state or local government hire the incumbent Ability One contractor's workforce. When otherwise in the best interests of the Army, the Army will continue to use IGSAs to obtain installation support services if IMCOM obtains a firm commitment from the respective state or local government regarding their hiring plans for incumbent contractor employees, especially those who are disabled.

QUESTIONS SUBMITTED BY SENATOR SUSAN M. COLLINS

ROBOTIC COMBAT VEHICLE PROGRAM

Question. With regard to the Army's robotic combat vehicle plans, how often does Army Futures Command evaluate autonomous ground vehicle experimentation efforts?

Answer. The Army's autonomous ground vehicle experimentation plan relies on tabletop exercises, virtual environments, and physical experimentation. Soldier feedback is critical to determining both future use cases and vehicle requirements. Major virtual experiments (where Soldiers control robotic combat vehicles in a simulation environment) occur approximately every 6 months, while physical experiments average once every three to 4 months. In addition to Soldier feedback, multiple technology assessments evaluate the software that enables the vehicles to operate autonomously. Further, independent evaluators determine if new software is adequately mature to integrate into a future Soldier operational experiment. If so, Soldiers then evaluate the new software in a relevant tactical environment and provide their comments to developers, who improve the existing software in accordance with the Soldier feedback and the performance data.

Experiments that have occurred over the past 2 years include, the Robotic Combat Vehicle (RCV) Soldier Operational Manned-Unmanned Teaming Experiment that took place at Fort Carson, Colorado, from July-August 2020. Additionally, RCV surrogates ("Project Origin") supported Project Convergence at Yuma Proving Ground from September to October 2020. These same systems then went to Fort Benning, Georgia for a three-week Soldier experiment in November 2020. The same Soldiers who operated the Project Origin platforms at Fort Benning then supported a live

fire at Camp Grayling, Michigan, in April 2021. The next Soldier operational experiment will occur in September 2021 at the Joint Readiness Training Center, located at Fort Polk, Louisiana.

Question. How do these evaluations differ, if at all, from existing program evaluations and review processes resident within the Department of the Army's acquisition community?

Answer. Robotic Combat Vehicle experimental evaluations follow the same processes used in the Army's acquisition and test communities. The Army enterprise breaks down learning objectives to support data collection and analysis after each experiment. Results from each experiment then inform both learning objectives and development priorities for the next experiment, as well as program planning for future acquisition programs of record.

Question. In the event separate but concurrent program and experimentation reviews come to different conclusions, what is the impact to resourcing decisions for the programs and experimentation efforts in question?

Answer. Any potential impact to Army resourcing decisions because of different conclusions from concurrent program and experimentation reviews will depend on the conclusions themselves and their impact on cost, schedule, and performance. The RCV program strives to minimize concurrent platform prototype development until Soldiers evaluate the platforms and their capabilities in a relevant operating environment.

QUESTIONS SUBMITTED BY SENATOR LISA MURKOWSKI

POSTURE REVIEW

Question. General McConville, during testimony you mentioned that the current Posture Review would have you looking at your resources available and drive your decisionmaking on re-aligning headquarters and forces in Alaska as you transition them from an administrative headquarters to an Arctic focused operational headquarters 1a. When is the current Posture Review expected to be completed, and where is the Review in the process now?

Answer. The Global Posture Review (GPR) is an Office of the Secretary of Defense (OSD) process and it is in the final review stages of review prior to a decision by the Secretary of Defense.

Question. Following the Posture Review, what will be the process for making these force realignment decisions, and when would we actually see results of these decisions take effect?

Answer. Following the Posture Review, the Army will use the Total Army Analysis (TAA) process to inform realignment decisions. Those decisions are typically announced in the first quarter of the fiscal year.

ARCTIC OVERLAND MOBILITY VEHICLE

Question. General McConville you also acknowledged during the hearing you would provide an update on the Cold Weather All-Terrain Vehicle ("the CAT-V"). Can you please provide me an update on the Phase II "Production" timeline and is there any indication that the fiscal year 2023 target of equipping units with the CAT-V has slipped?

Answer. At this point, the Army has seen no indication of any slippage in the current schedule. A Production Award is scheduled for June 2022 with first production vehicle delivery in August 2023.

Question. If it has slipped, has this been addressed in the fiscal year 22 budget?

Answer. The Army has seen no indication of any slippage in the current schedule.

Question. When will these new CAT-Vs be fielded? Will they go to Alaska-based troops?

Answer. The CATV will begin fielding in fiscal year 2023, with the first unit equipped expected in the fourth quarter of fiscal year 2023. The CATV program is on schedule to conduct cold weather testing in fiscal year 2022 and begin production in fiscal year 2023. As this vehicle is crucial for the Arctic Soldier and their mission, Alaska-based troops are expected to be part of the fielding plan.

ARCTIC ORGANIZATION CLOTHING AND INDIVIDUAL EQUIPMENT (OCIE) FOR FT DRUM, FT CARSON, AND ALASKA BASES

Question. Unique clothing and equipment for the Arctic (mittens, boots, sleep systems) to ensure soldier safety and readiness for units assigned to train and deploy to Arctic locations has been identified as an unfunded requirement in this budget. Congress not funding proper winter clothing for our Army has been an issue dating

back to Valley Forge and Morristown, and I'd hope we'd have learned that lesson by this point. The cold weather sustainment items ensure safety and readiness for soldiers assigned to the Arctic, and as we pivot to conducting more training and operations in the region I would imagine they are crucial to our abilities to do so.

General McConville, can you identify concisely the degradation to readiness if we are unable to outfit all our soldiers assigned to train and deploy in the arctic environments in this budget cycle?

Answer. The Army equips and trains to fight under any environmental condition. Arctic conditions are challenging, but commanders are responsible for ensuring readiness for the conditions of the operational environment when deployed. This includes assessing the risks associated with an Arctic environment and taking actions to mitigate the risk of injuries or accidents due to cold weather while still accomplishing the assigned mission. These actions include training on how to use cold weather clothing and equipment properly, as well as preventing and treating cold weather injuries. The current Army procurement strategy is to equip select active duty and National Guard units that are specially trained to operate in Arctic environments, with improved cold weather equipment. Approximately 3 percent of our total Army (all components) is outfitted today to operate in Extreme Cold Weather (ECW) or Arctic regions of the world. The Army has issued guidance to improve upon the ability to operate in Arctic conditions, while assessing the risk across all other requirements within the equipping enterprise of the Army. I expect that this new guidance will be addressed in Program Objective Memorandum, fiscal year 2024–2028.

Question. Is there legacy equipment that would or could be used, or is this a “show stopper” for various exercises and operations you have planned either internally or with partners and allies?

Answer. Currently available clothing and equipment allows Soldiers to conduct all necessary exercises and operations. All Soldiers have components of the Extended Cold Weather Clothing System (ECWCS). This system allows Soldiers to use layers to provide adequate protection from temperate to arctic weather conditions. All Soldiers have elements of the ECWCS that allow them to operate from temperate to cold weather conditions.

Additionally, ~40,000 Soldiers have the components of the ECWCS that allow them to operate in extreme cold weather, including climate zones 6 (extreme cold weather) and 7 (Arctic weather). These ECWCS components comprising Layer 6 and Layer 7, include insulated gloves, trigger finger mittens, insulated mittens, cold weather boots, CW/ECW socks, boot gaiter, and a balaclava. Deliveries are expected that will outfit an additional 50,000 Soldiers for next winter.

SUBCOMMITTEE RECESS

Senator TESTER. The Defense subcommittee will reconvene on Thursday, June 24, at 10 a.m. to hear from the Navy and Marine Corps leadership on fiscal year 2022 Department of Navy budget request. With that, this subcommittee stands in recess. Thanks, guys.

[Whereupon, at 11:09 a.m., Tuesday, June 22, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, June 24.]